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IFPRI Discussion Paper 01053

January 2011

Foreign Aid to Agriculture

Review of Facts and Analysis

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Director General's Office

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

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PARTNERS AND CONTRIBUTORS

IFPRI gratefully acknowledges the generous unrestricted funding from Australia, Canada, China, Denmark, Finland, France, Germany, India, Ireland, Italy, Japan, the Netherlands, Norway, the Philippines, South Africa, Sweden, Switzerland, the United Kingdom, the United States, and the World Bank.

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ABSTRACT

This paper seeks to provide a consistent and comparable set of data on the trends in the provision of aid to agriculture over time within the framework of changes in the pattern of sectoral distribution of total development aid. Furthermore, it examines the factors, relating both to the agriculture sector itself and to the priorities and allocation processes of the total aid, which may account for the decline in aid to agriculture over the past two decades or more. It analyzes how in recent years the agricultural sector, as conventionally defined, and investments in the sector are increasingly incorporated in the new and wider concepts of food security and rural development as well as investments in them. In the end, the paper evaluates in the foregoing context the various commitments of the quantitative targets of aid made by the donors in the period following the post-2007 food crisis for agricultural development and food security.

Keywords: OECD/DAC classification, CRS, bilateral, multilateral, total aid, irrigation, poverty, aid priorities, food security, rural development, share of agriculture, share in GDP

ACKNOWLEDGMENT

I am thankful to Tolulope Olofinbiyi and Bella Nestorova for their useful comments on an earlier draft of the paper and for their help in getting access to the database from OECD/DAC in a usable form. I am grateful to Vicki Lee for the hard work she had put in to type and format this highly data-intensive paper, including the various figures.

1. INTRODUCTION

In recent years, there has been much discussion about the causes of the slowdown in growth of agricultural production, especially in the context of the world food crisis, which severely hit developing countries in 2007 and 2008. The decline in agricultural investment, including a decline in the share of the agricultural sector in the aggregate investment, was considered to be a major contributing factor to this crisis.

Two components of investment in agriculture have drawn particular attention as being of vital importance in this context. One is the trend in foreign aid to agriculture, and the other is the trend in domestic public expenditure on agriculture. This paper investigates the empirical evidence on the former issue.

A review provides an opportunity to explore the criteria and considerations that influence the international donor community, both bilateral and multilateral, in determining the volume and pattern—that is, the sectoral distribution—of aid.[1] An analysis of the external environment, as evidenced, for example, in the various international and UN conferences and meetings over the years, indicates how and to what extent they had an impact on the volume of aid and its priorities, such as aid to agriculture. In the aftermath of the 1973–1974 world food crisis, a major international conference was convened by the UN General Assembly on food and agriculture. During the 1990s, a number of international conferences of the United Nations Food and Agriculture Organization and other food agencies culminating in the World Food Summit convened by the FAO in 1996 and its several follow-up meetings, called upon donor countries to increase the flow of aid to agriculture. Furthermore, the most recent meetings convened by G10 and G20 countries following the 2007–2008 world food crisis reiterated the appeal for more aid to agriculture. Simultaneously, all the conferences then and more recently called upon developing countries to increase the volume of their public expenditures on agriculture.

These international deliberations and consequent appeals to both donors and recipients to increase expenditures on agriculture are based on two sets of assumptions: (1) the flow of aid to, as well as domestic public expenditures on, agriculture has been declining for the past two decades, and (2) the required amount of investment in agriculture (external and domestic) in developing countries must be greatly increased above the existing level. Regarding the latter assumption, it is estimated that this amount currently falls far short of the requirements necessary to meet the growing needs, especially in the developing world, of a rising population with an increasingly diversified food expenditure pattern, including a growing demand for livestock products.

Thus, the relevant questions regarding the trends in the flow of aid to agriculture are as follows: Has there been a decline in the absolute amount of aid? Has the share of aid to agriculture in the total aid declined, or is it constant? With an increase in total aid flow, a sharp decrease in the share of agriculture would result in a decline in the absolute amount of aid to agriculture; with a decrease in the total aid, the absolute amount of aid to agriculture would decrease even further if its share were to remain constant. Hence, it is important to analyze the share of agriculture in the total aid flow. Moreover, total aid is determined by a variety of political, economic, and strategic considerations, including the state of the world economy, as well as the economy of donor countries; it is the share of agriculture in the total aid that is relevant to determining the relative importance or priority attached to the agricultural sector by the donor community. After all, there is a limited amount of aid for which various sectors compete for their respective shares. In addition, there are few other issues which require analysis. What are the possible reasons for a decline in aid to agriculture over the years? How has the pattern or composition of aid to agriculture changed over the years and what are the implications thereof? What are the prospects and the rationale of increase in aid to agriculture in the future years, especially if it is considered in the wider context of food security and rural development?

[1] Aid stands for Official Development Assistance (ODA) throughout the paper. Total aid is overall aid, combined bilateral and multilateral, to all the sectors of an economy.

2. TRENDS IN SECTORAL DISTRIBUTION OF TOTAL AID AND SHARE OF AGRICULTURE

Analysis of aid flows to agriculture in the context of the total aid flow during the past three or more decades is greatly hampered by the lack of complete, reliable, and consistent data. The only systematic data available for aid flows over time have been compiled by the Organization for Economic Cooperation and Development's Development Assistance Committee (OECD/DAC). However, the easily accessible OECD/DAC website does not provide a consistent and comparable breakdown of aid flows from both multilateral and bilateral donors from the early 1970s to the present. This source provides a sectoral classification of aid flows from the 1970s onward only for the bilateral aid. The sectoral classification of the total aid flows, is available only from 1995.[2]

Moreover, there are a few problems with the data that are available. First, the data available regarding aid to the agricultural sector from the OCED/DAC database, which includes agriculture, forestry, and fisheries subsectors, do not provide any breakdown into three subsectors until 1994; from the mid-1990s onward, however, separate figures are provided for forestry, fisheries, and agriculture.

Second, a category of "multisectoral" aid includes aid to more than one sector. It is not clear from the published data how much of this goes to the agricultural sector as distinguished from any other sector, even though the OECD/DAC database includes *multisectoral aid* in its definition of total "allocable sectors"; this may imply that in its detailed dataset (CRS) for individual countries, more details are available to classify these sectors. Third, one category of aid in both the OECD/DAC and CRS database is called "unallocable." In other words, this category of aid cannot be classified by sector even from the OECD's internal database (the CRS). Therefore, it is not known how much aid directly or indirectly goes to agriculture or any other sector. The share of total "sector allocable aid" in total bilateral aid varied between 55 percent in 1973–1975, 68 percent in 1994–1996 and 64 percent in 2006–2008.[3] The share of the "sector allocable aid" in the combined total bilateral and multilateral aid varied between 77 percent in 1995–1996 and 70 percent in 2006–2008. The higher share of the "sector allocable aid" in the earlier period, that is 1995–1996, may have been due to the fact that the "unspecified item" in the category of unallocable aid became an increasingly smaller share in the latter period. This probably resulted from an improvement in accounting procedures.

The unallocated "unspecified" item varied between 10 and 27 percent of bilateral aid during the 1970s and early 1980s; since the mid-1980s, this item was much lower, declining to about 2 percent by the late 2000s. The ratio of unspecified to total aid from 1995 to 2008 was between 1.1 and 2.3 percent.

The sectoral distribution of the bilateral and total aid is shown in Tables 1 and 2, Figures 1–8, and Figures 12-19. Social infrastructure and services has accounted for the largest share in the bilateral as well as in the total aid. Its share in the bilateral aid has increased over time—from 20.7 percent in 1973–1975 to 29.0 percent in 1994–1996. By 2006–2008, its share reached 38.0 percent. At the same time, the share of this sector in the total aid was 27.4 percent in 1995–1996 and it enjoyed an uninterrupted increase to 41 percent in 2006–2008 (Figures 1 and 2).

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[2] The only other recourse for making a sectoral classification of both bilateral and multilateral aid is to analyze the individual donor country data in the OECD's credit reporting system (CRS). This would require examining the detailed country data, checking their classification, and ensuring their consistency. Delving into the details of the data available on the OECD website reveals inconsistencies and errors that can only be rectified by painstaking, time-consuming investigation of project-by-project and donor-by-donor data that are available in the CRS—an exercise that can only be done by the OECD secretariat, the compiler of data from the donors. For example, in the OECD/DAC dataset, the subtotals of the aid shares of the subsectors (agriculture, forestry, and fishery) do not add up to the total figures given for the agricultural sector. The data from 1995 are available for total aid and its classification from the OECD website. A startling example of inconsistency in data relates to the relative amounts of bilateral and multilateral aid to agriculture. In some studies, such as von Braun et al., DFID 2004, as well as OECD documents from the early period until the mid-1990s, the share of multilateral aid to agriculture was shown to be much higher than bilateral aid, whereas some other, more recent sources provided the exactly contrary data. Their relative shares for all time periods were different—for example, bilateral aid was consistently higher than multilateral aid from the 1970s until 2008.

[3] Because of the year-to-year fluctuations in aid commitment, this discussion is based on two- or three-year averages. Aid commitments are spiking as the full value of the commitment is reported in the year it is made, irrespective of the duration of the project. For example, large-scale irrigation projects exacerbate this. When averaged over a three-year period, the flow of aid fluctuates less dramatically.

Table 1. Sectoral distribution of bilateral aid (percentage)

	1970-72	1973-75	1976-78	1979-81	1982-84	1985-87	1988-90	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08
I. SOCIAL INFRASTRUCTURE & SERVICES	**26.7**	**20.7**	**19.4**	**23.9**	**25.9**	**25.3**	**23.8**	**23.2**	**29.3**	**29.8**	**32.9**	**32.9**	**37.7**
I.1. Education	19.6	10.8	10.3	12.5	11.7	10.7	10.2	9.2	10.8	10.7	8.5	7.4	8.3
I.2. Health	0.6	3.7	4.4	5.3	5.2	4.5	3.5	3.0	4.1	3.9	4.2	4.0	4.5
I.3. Population Pol./Program & Reproductive Health	0.0	0.0	0.0	0.0	0.1	0.9	1.0	0.9	1.4	1.6	2.8	3.1	5.6
I.4. Water Supply & Sanitation	1.8	1.8	1.4	1.8	2.9	3.3	3.7	4.3	5.8	5.4	4.5	4.1	4.6
I.5. Government & Civil Society	1.3	2.0	1.0	1.3	2.1	2.6	2.4	2.8	3.1	3.8	6.7	10.2	10.9
I.6. Other Social Infrastructure & Services	3.3	2.4	2.3	2.9	3.9	3.3	3.1	3.0	4.2	4.4	6.2	4.1	3.9
II. ECONOMIC INFRASTRUC-TURE & SERVICES	**8.7**	**11.1**	**14.2**	**17.5**	**19.0**	**19.1**	**18.6**	**19.0**	**22.9**	**19.5**	**14.6**	**12.3**	**13.9**
II.1. Transport & Storage	3.9	3.4	4.6	8.3	7.0	7.1	7.5	7.6	10.5	8.8	7.6	4.4	5.7
II.2. Communications	1.5	3.2	1.4	1.8	3.0	2.5	3.1	2.5	1.6	1.1	0.6	0.7	0.3
II.3. Energy	3.3	4.3	7.3	7.2	8.4	7.7	6.2	7.4	8.4	6.7	3.8	5.1	4.3
II.4. Banking & Financial Services	0.0	0.0	0.0	0.0	0.4	1.1	0.3	0.8	0.7	0.7	0.8	1.0	2.1
II.5. Business & Other Services	0.0	0.3	0.9	0.1	0.1	0.7	1.5	0.7	1.6	2.2	1.8	1.1	1.4
III. PRODUCTION SECTORS	**9.2**	**20.6**	**21.1**	**25.9**	**22.3**	**18.5**	**15.4**	**12.8**	**11.4**	**9.2**	**7.4**	**5.6**	**5.8**
III.1. Agriculture, Forestry, Fishing	3.9	7.5	9.5	12.1	11.4	11.9	9.3	7.6	8.1	6.7	5.4	3.3	3.9
III.1.a. Agriculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.9	4.1	2.5	3.2
III.1.b. Forestry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.6	0.6	0.5
III.1.c. Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.2	0.2
III.2. Industry, Mining, Construction	5.4	6.5	5.4	5.9	5.3	5.7	4.8	4.0	1.8	2.1	1.3	1.8	1.2
IV. MULTISECTOR / CROSS-CUTTING	**0.6**	**2.2**	**2.4**	**2.2**	**4.7**	**2.0**	**2.9**	**3.6**	**4.8**	**7.2**	**7.4**	**6.8**	**6.2**
IV.1. General Environment Protection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.0	2.7	1.6	2.1
IV.2. Other Multisector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.9	4.7	5.3	4.1
V. TOTAL SECTOR ALLOCABLE (I+II+III+IV)	**45.2**	**54.7**	**57.1**	**69.5**	**71.8**	**64.9**	**60.8**	**58.5**	**68.4**	**65.8**	**62.4**	**57.6**	**63.7**
VI. COMMODITY AID / GENERAL PROGRAM ASSISTANCE	**28.2**	**14.9**	**14.4**	**11.5**	**12.4**	**21.1**	**16.7**	**15.6**	**6.3**	**6.6**	**6.2**	**3.5**	**4.1**
VI.1. General Budget Support	0.0	0.0	0.0	0.0	0.0	0.4	1.8	2.2	1.5	1.1	0.6	0.9	2.8
VI.2. Development Food Aid/Food Security Assistance	19.7	10.0	8.8	5.4	5.1	7.1	4.3	3.2	2.1	2.5	2.8	1.3	1.2
VI.3. Other Commodity Assistance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.9	1.3	0.1

Table 1. Continued

	1970-72	1973-75	1976-78	1979-81	1982-84	1985-87	1988-90	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08
VII. ACTION RELATING TO DEBT	**6.4**	**2.8**	**4.3**	**3.9**	**1.4**	**2.4**	**11.2**	**10.2**	**8.2**	**8.3**	**10.2**	**20.7**	**13.8**
VIII. HUMANITARIAN AID	**1.0**	**1.0**	**0.8**	**1.6**	**1.5**	**1.8**	**1.9**	**5.1**	**3.8**	**6.2**	**5.1**	**7.3**	**7.4**
VIII.1. Emergency Response	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	4.9	3.7	5.2	6.6
VIII.2. Reconstruction Relief & Rehabilitation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6
VIII.3. Disaster Prevention & Preparedness	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
IX. ADMINISTRATIVE COSTS OF DONORS	**0.0**	**0.0**	**0.0**	**0.0**	**1.3**	**3.9**	**3.7**	**3.2**	**4.8**	**5.9**	**6.1**	**4.7**	**4.8**
X. SUPPORT TO NGO'S	**0.0**	**0.0**	**0.0**	**0.0**	**1.5**	**2.3**	**1.4**	**1.4**	**0.9**	**1.7**	**4.0**	**2.0**	**2.4**
XI. REFUGEES IN DONOR COUNTRIES	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.5**	**1.1**	**1.4**	**2.5**	**2.3**	**2.0**
XII. UNALLOCATED / UNSPECIFIED	**19.1**	**26.6**	**23.4**	**13.5**	**10.1**	**3.7**	**4.4**	**5.5**	**6.5**	**4.3**	**3.6**	**2.0**	**1.7**
TOTAL (V + VI + VII + VIII + IX + X + XI + XII)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Data from OECD/DAC database.

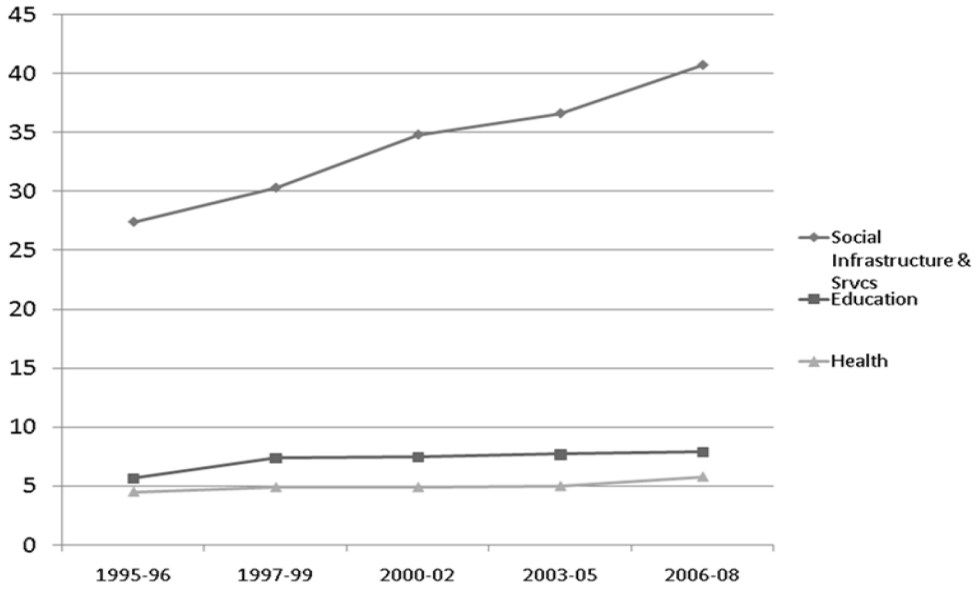
Table 2. Sectoral distribution of total aid (percentage)[1]

	1995–96	1997–99	2000–02	2003–05	2006–08
I. SOCIAL INFRASTRUCTURE & SERVICES	**27.4**	**30.3**	**34.8**	**36.6**	**40.7**
I.1. Education	5.7	7.4	7.5	7.7	7.9
I.2. Health	4.5	4.9	4.9	5.0	5.8
I.3. Population Pol./Program & Reproductive Health	1.8	2.5	3.3	4.0	6.2
I.4. Water Supply & Sanitation	7.5	6.1	5.2	4.6	5.0
I.5. Government & Civil Society	5.7	5.9	8.4	10.9	11.7
I.6. Other Social Infrastructure & Services	2.2	3.8	5.5	4.4	4.1
II. ECONOMIC INFRASTRUCTURE & SERVICES	**27.8**	**22.7**	**18.2**	**14.2**	**15.7**
II.1. Transport & Storage	12.9	11.7	8.5	5.9	7.2
II.2. Communications	1.4	0.9	0.7	0.6	0.4
II.3. Energy	10.6	6.9	4.8	4.8	4.7
II.4. Banking & Financial Services	1.3	1.3	2.0	1.5	1.9
II.5. Business & Other Services	1.6	1.9	2.2	1.4	1.5
III. PRODUCTION SECTORS	**12.3**	**10.4**	**8.9**	**7.2**	**7.1**
III.1. Agriculture, Forestry, Fishing	9.8	7.7	5.9	4.3	4.7
III.1.a. Agriculture	8.0	6.3	4.8	3.5	4.0
III.1.b. Forestry	1.1	0.8	0.7	0.5	0.4
III.1.c. Fishing	0.8	0.5	0.4	0.2	0.2
III.2. Industry, Mining, Construction	2.2	2.4	2.2	2.2	1.5
III.3.a. Trade Policies & Regulations	0.2	0.3	0.7	0.6	0.8
III.3.b. Tourism	0.1	0.1	0.1	0.1	0.1
IV. MULTISECTOR / CROSS-CUTTING	**9.2**	**9.1**	**7.9**	**6.3**	**6.8**
IV.1. General Environment Protection	3.7	2.5	2.3	1.5	2.0
IV.2. Other Multisector	5.5	6.6	5.6	4.8	4.8
V. TOTAL SECTOR ALLOCABLE (I+II+III+IV)	**76.8**	**72.6**	**69.9**	**64.4**	**70.3**
VI. COMMODITY AID / GENERAL PROGRAM ASSISTANCE	**9.4**	**8.6**	**8.1**	**5.1**	**5.2**
VI.1. General Budget Support	6.6	5.0	4.6	3.5	3.8
VI.2. Development Food Aid/Food Security Assistance	1.7	2.7	3.2	1.4	1.1
VI.3. Other Commodity Assistance	1.1	0.9	0.4	0.2	0.4
VII. ACTION RELATING TO DEBT	**6.0**	**6.4**	**8.2**	**16.5**	**10.2**
VIII. HUMANITARIAN AID	**4.9**	**8.1**	**6.1**	**8.0**	**6.7**
VIII.1. Emergency Response	4.4	7.5	5.4	6.5	5.7
VIII.2. Reconstruction Relief & Rehabilitation	0.5	0.6	0.7	1.5	0.8
VIII.3. Disaster Prevention & Preparedness	0.0	0.0	0.0	0.0	0.2
IX. ADMINISTRATIVE COSTS OF DONORS	**0.1**	**0.9**	**2.3**	**2.4**	**3.8**
X. SUPPORT TO NGO'S	**0.6**	**0.6**	**2.4**	**0.8**	**1.3**
XI. REFUGEES IN DONOR COUNTRIES	**0.5**	**0.4**	**1.2**	**1.5**	**1.5**
XII. UNALLOCATED / UNSPECIFIED	**1.7**	**2.5**	**1.8**	**1.4**	**1.1**
TOTAL (V+VI+VII+VIII+IX+X+XI+XII)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: OECD – DAC/CRS, various years.
Note: [1] Total aid stands for the combined total of bilateral and multilateral aid.

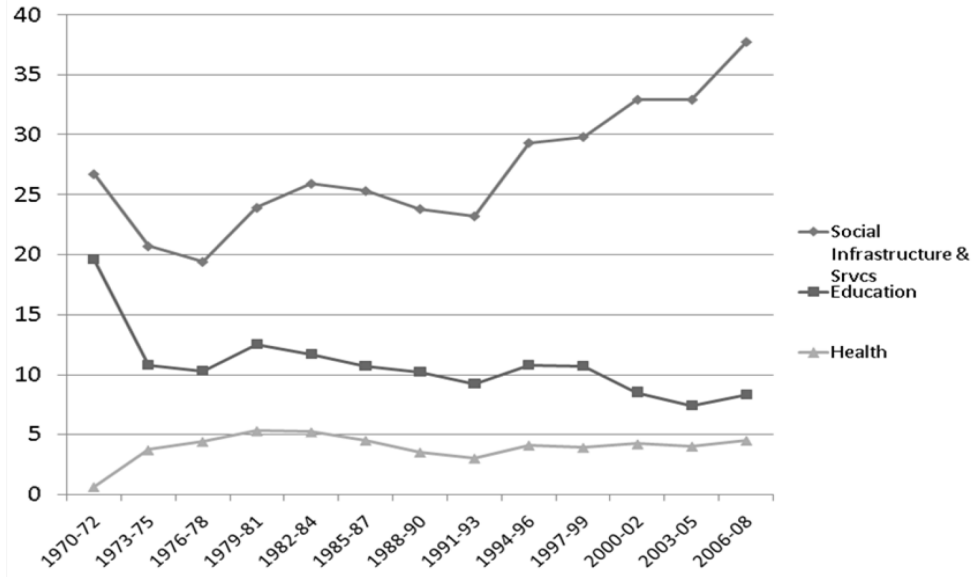
The health and education components of the social infrastructure and services had consistently large shares in both the bilateral as well as in the total aid. The share of both health and education together was 10 percent of the total aid in 1995–1996, increasing to about 14 percent in 2006–2008, with the share of aid to education being consistently higher than that of health. In 1995–1996, the share of education was 5.7 percent, whereas that of health was 4.5 percent; in 2006–2008, their respective shares were 8 percent and 6 percent (Figures 1 and 2).

Figure 1. Sectoral distribution of total aid (percentage): Social infrastructure and services, education, and health



Source: OECD/DAC and OECD/CRS, various years.

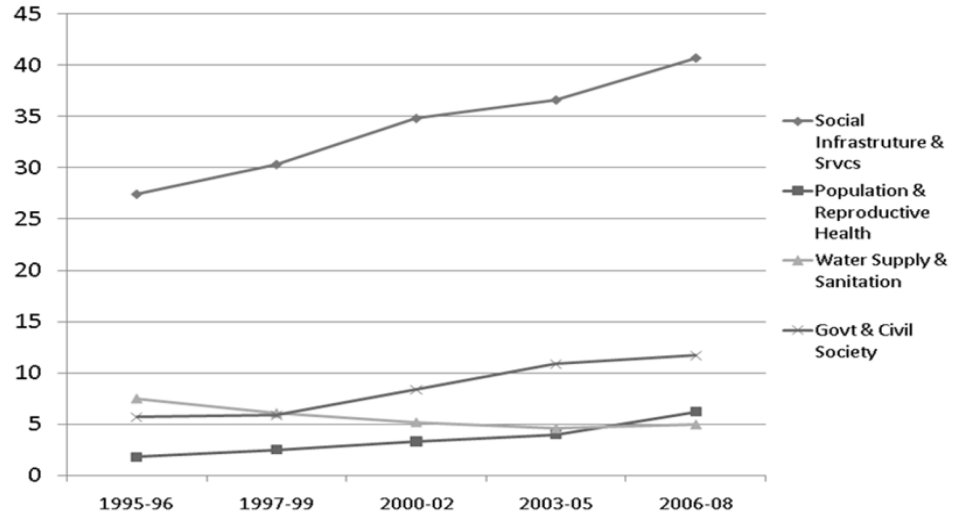
Figure 2. Sectoral distribution of bilateral aid (percentage): Social infrastructure and services, education, and health



Source: OECD/DAC and OECD/CRS, various years.

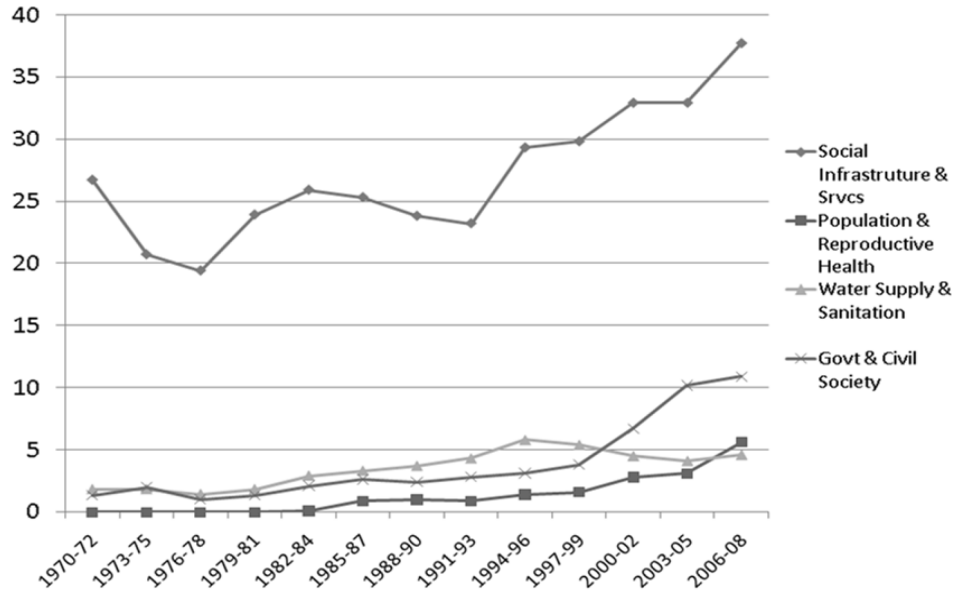
The population component did not exist until 1982–1984 and continued to be low during the rest of 1980s; it then increased from 1.8 percent of the total aid in 1994–1996, reaching reached 6.2 percent by 2006–2008. Likewise, the share of water supply and sanitation was very low during the 1980s and started to increase by the 1990s, reaching 7.5 percent in the total aid in 1995–1996 and then declined to 5.0 percent in 2006–2008. The most significant increase was in the government and civil society component of social infrastructure and services; its share of the total aid was about 6.0 percent in 1995–1996. By the early 2000s, it exceeded the shares of all other components in the social sector, reaching about 12 percent in total aid in 2006–2008 (Figures 3 and 4).

Figure 3. Sectoral distribution of total aid (percentage): Social infrastructure and services, population and reproductive health, water supply and sanitation, and government and civil society



Source: OECD/DAC and OECD/CRS, various years.

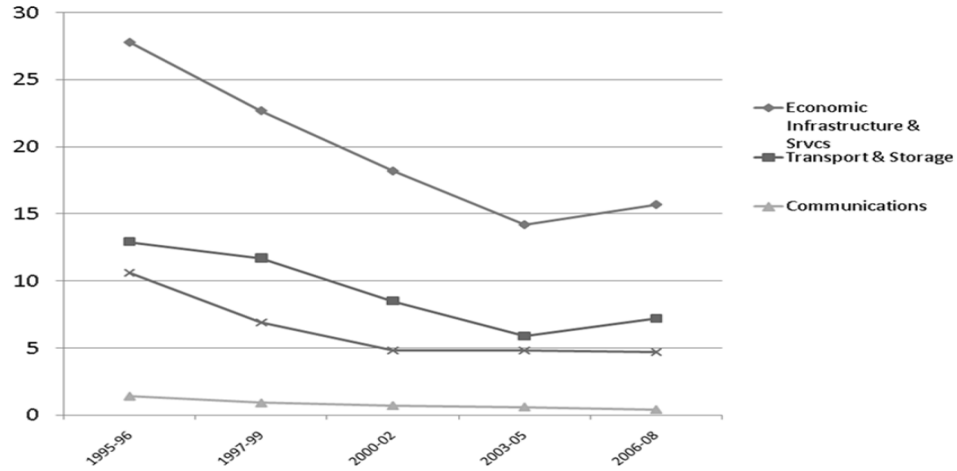
Figure 4. Sectoral distribution of bilateral aid (percentage): Social infrastructure and services, population and reproductive health, water supply and sanitation, and government and civil society



Source: OECD/DAC and OECD/CRS, various years.

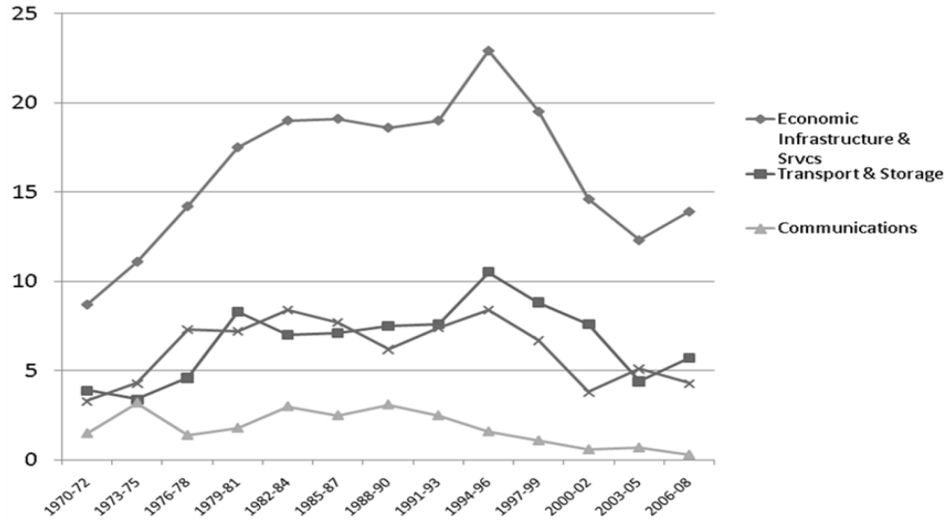
The share of economic infrastructure and services throughout was lower than that of social infrastructure and services, the former's share in bilateral aid increased from 11 percent in 1973–1975 to 23 percent in 1994–1996 and then started to decline and it was 14 percent in 2006–2008. It reached 27.8 percent of the total aid in 1995–1996 and thereafter started to decline consistently, reaching about 16 percent in 2006–2008. The three important components of the economic infrastructure and services sector were storage and transport, communications, and energy, which increased their share of the bilateral aid during the 1970s and 1980s, and then started to decline. However, their share in the total aid declined from 29.4 percent in 1995–1996 to 12.3 percent in 2006–2008 (Figures 5 and 6).[4]

Figure 5. Sectoral distribution of total aid (percentage): Economic infrastructure and services, transport and storage, and communications



Source: OECD/DAC and OECD/CRS, various years.

Figure 6. Sectoral distribution of bilateral aid (percentage): Economic infrastructure and services, transport and storage, and communications

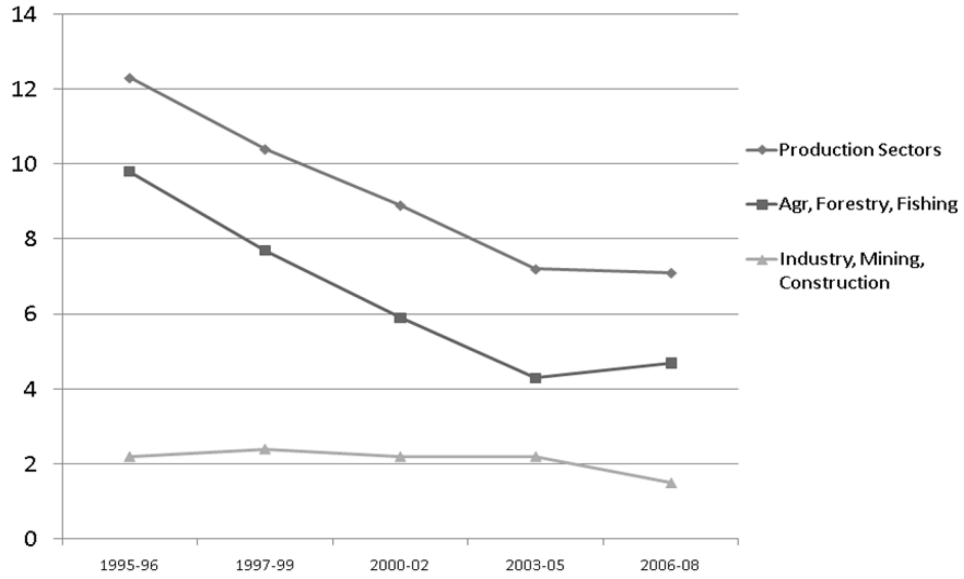


Source: OECD/DAC and OECD/CRS, various years.

[4] In a large part of the economic infrastructure and services sector, which was dominated by the public sector until the 1990s, the private sector increasingly became important, including foreign direct investment in such areas as communications and energy. This may partly explain the declining role of aid. An increasing role of the private sector also explains a significant decline over time in the share of aid going to industries, mining, and construction.

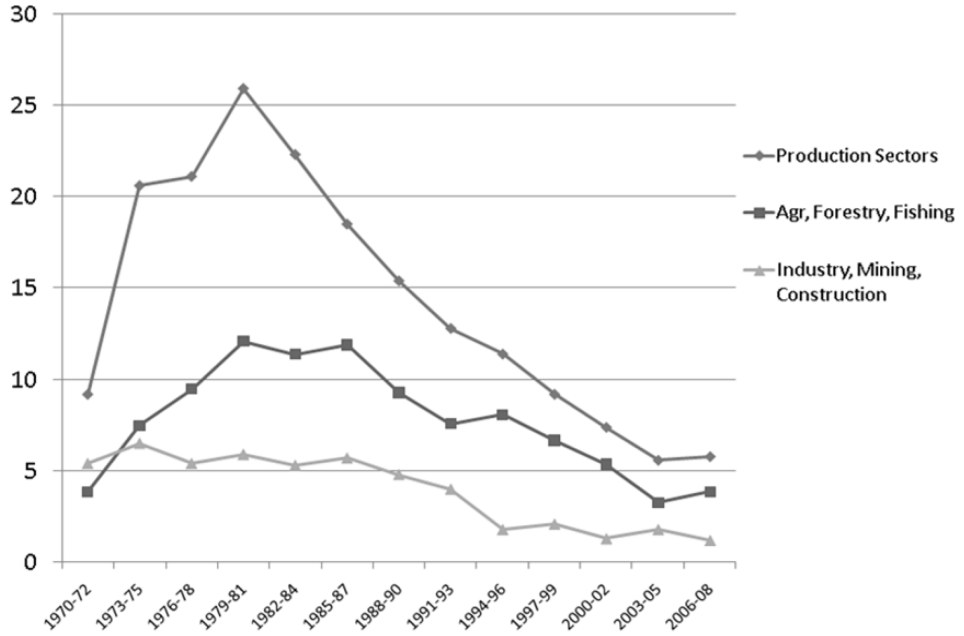
The share of the production sector, meaning agriculture, industry and mining, and trade policies and tourism, in the bilateral aid increased until mid-1990s when it was 23 percent, and then it started to decline. Its share in the total aid was 12.3 percent in 1995–1996, dropping to 7.1 percent in 2006–2008 (Figures 7 and 8).

Figure 7. Sectoral distribution of total aid (percentage): Production sectors; agriculture, forestry, and fishing; and industry, mining, and construction



Source: OECD/DAC and OECD/CRS, various years.

Figure 8. Sectoral distribution of bilateral aid (percentage): Production sectors; agriculture, forestry, and fishing; and industry, mining, and construction

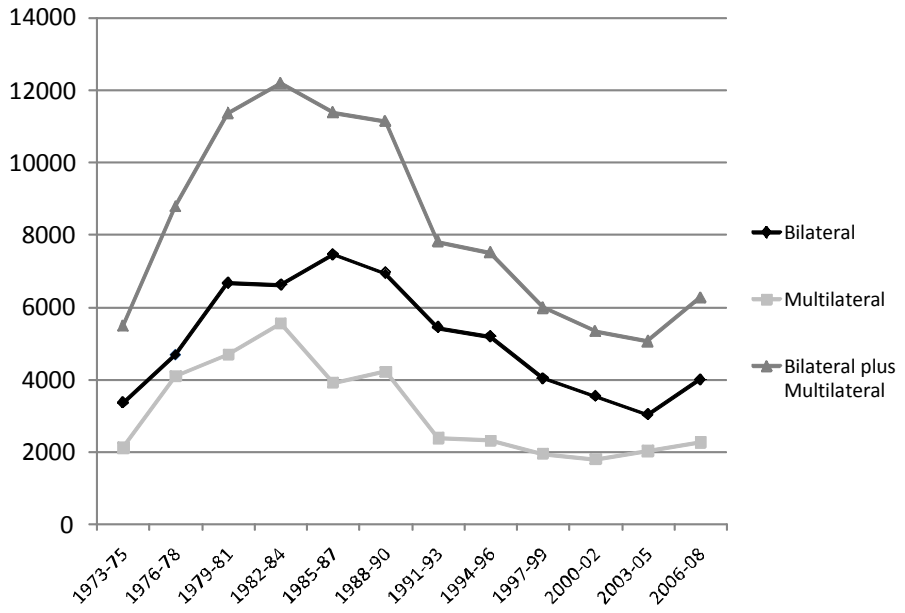


Source: OECD/DAC and OECD/CRS, various years.

The share of aid to agriculture in total aid increased from 13.0 percent in 1973–1975 to about 23 percent in 1979–1981, the highest share reached throughout the period from 1973 to 2008. The 1974 World Food Conference in the aftermath of the 1973–1974 world food crisis seemed to have contributed to the increase in aid to agriculture in this period. From the mid-1980s onward, the share of aid to agriculture started to decline continuously, until it reached 5.5 percent during 2003–2005; it then increased to 6.0 percent in 2006–2008 (Figures 9–11 and Tables 3 and 4).[5] Multisector/ crosscutting aid starting from a very insignificant base, aid started to increase its share during the 1990s. Its share in bilateral aid was about 4 percent in 1991–1993 and 6 percent in 2006–2008, whereas its share in the total aid varied between 9 and 7 percent in the 2000s. The increase in multisector aid was partly due to an increasing emphasis on interdependence among sectors and the synergistic effects of development in one sector on the other. Environmental protection emerged as a new component during the mid-1990s and 2000s (Figures 12 and 13).

Sector-wise unallocable aid includes commodity and general program assistance (general budget support, development food aid and food security assistance, and other commodity assistance), humanitarian aid (emergency response, reconstruction, relief and rehabilitation, disaster prevention and preparedness), support to nongovernmental organizations (NGOs) and action relating to debt, refugees in donor countries, administrative costs, and "unspecified" aid.

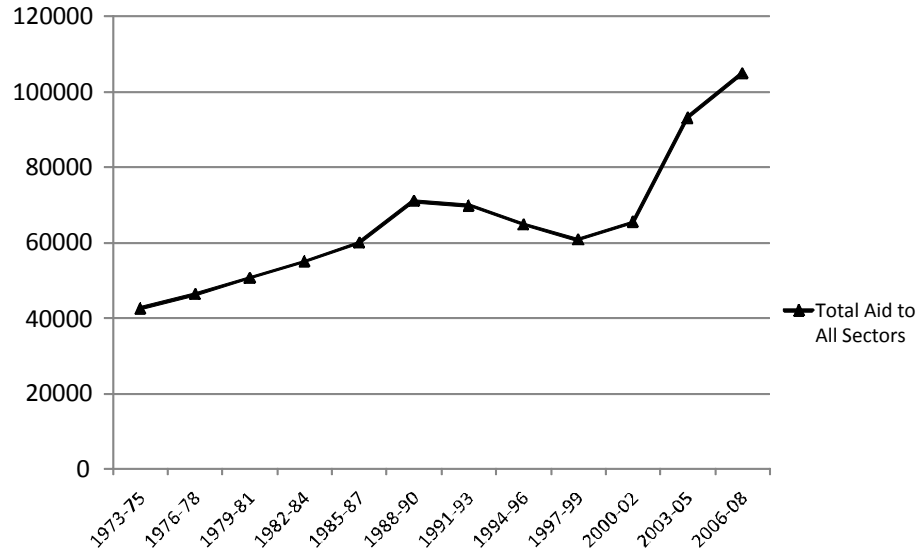
Figure 9. Aid to agricultural, bilateral, multilateral, and bilateral plus multilateral, 3-year average, US$ million (constant prices of 2007)



Source: OECD/CRS, various years.

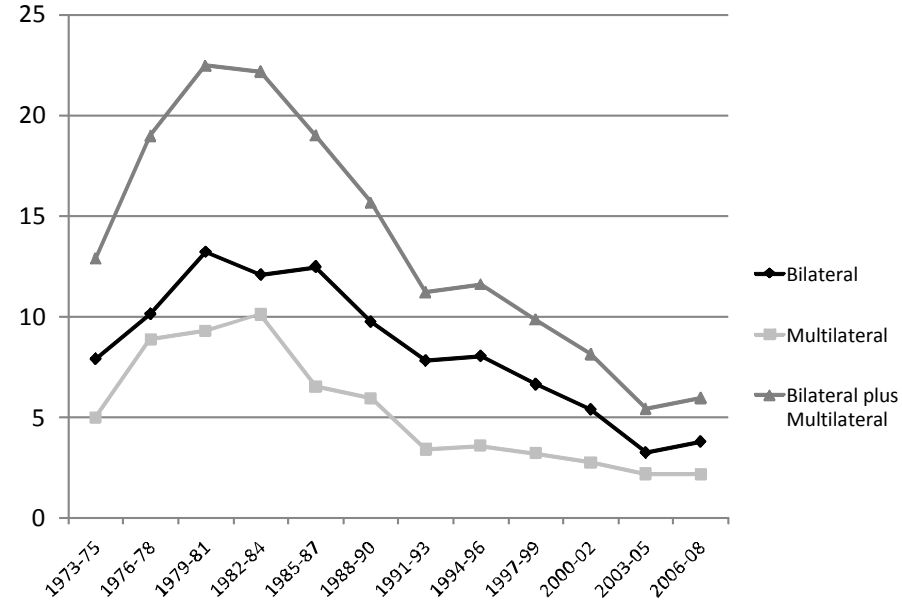
[5] The percentage share of aid to agriculture given in Tables 3 and 4 does not conform to the shares of aid to agriculture in Table 2 because the data for Tables 1 and 2 are taken from OECD/DAC database whereas the data for Tables 3–4 and Figures 9–11 are taken from Credit Reporting System (CRS) which do not exactly conform to each other. The discrepancy is especially significant in the case of total aid. The OECD publications relating to aid to agriculture, use the CRS data rather than the OECD/DAC data. This is especially because CRS data provide both multilateral and bilateral aid for all the years from 1970s. This is the reason why this paper also uses CRS rather than DAC website data.

Figure 10. Total aid to all sectors, 3-year average, US$ million (constant prices of 2007)



Source: OECD/CRS, various years.

Figure 11. Share of bilateral, multilateral, and bilateral plus multilateral aid to agriculture in total aid to all sectors (percentage)



Source: OECD/CRS, various years.

Table 3. Aid to agriculture, bilateral, multilateral, and total aid, US$ million, 3-year average (constant prices of 2007)

	1973–75	1976–78	1979–81	1982–84	1985–87	1988–90	1991–93	1994–96	1997–99	2000–02	2003–05	2006–08
Bilateral agriculture commitments	3353.1277	4676.2539	6662.9216	6623.5560	7458.4278	6909.0249	5436.1120	5192.9311	4022.6842	3527.3287	3020.8554	3986.2900
Multilateral agriculture commitments	2122.0722	4096.8765	4692.9538	5554.8680	3912.5137	4220.1454	2382.7820	2314.9896	1954.5124	1803.1113	2034.4000	2269.7099
Bilateral plus multilateral aid	5475.2000	8773.1304	11355.8750	12178.4240	11370.9420	11129.1700	7818.8940	7507.9206	5977.1966	5330.4400	5055.2555	6256.0000
Total aid to all sectors	42461.6330	46212.221	50528.9600	54922.8020	59877.9430	71021.3140	69686.0490	64607.8170	60653.7690	65412.4970	92946.3030	104753.9100

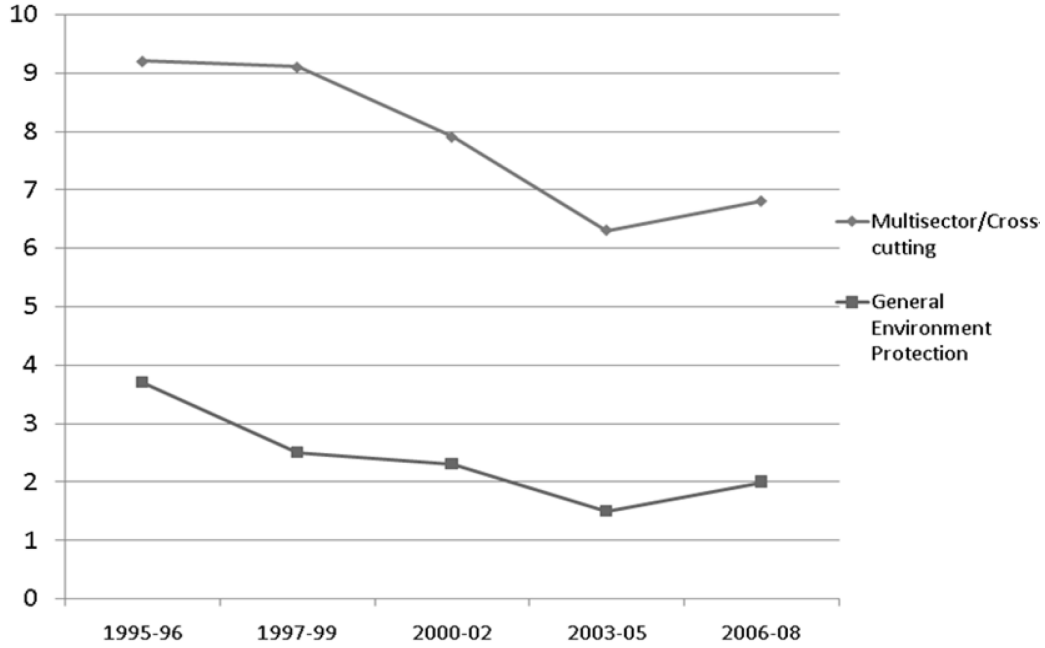
Source: OECD/DAC and OECD/CRS, various years.

Table 4. Share of bilateral and multilateral agricultural aid in total aid to all sector (percentage)

	1973–75	1976–78	1979–81	1982–84	1985–87	1988–90	1991–93	1994–96	1997–99	2000–02	2003–05	2006–08
Bilateral agriculture commitments	7.897	10.119	13.186	12.060	12.456	9.728	7.801	8.038	6.632	5.392	3.250	3.805
Multilateral agriculture commitments	4.998	8.865	9.288	10.114	6.534	5.942	3.419	3.583	3.222	2.757	2.189	2.167
Bilateral plus multilateral aid	12.894	18.984	22.474	22.174	18.990	15.670	11.220	11.621	9.855	8.149	5.439	5.972
Total aid to all sectors	100	100	100	100	100	100	100	100	100	100	100	100

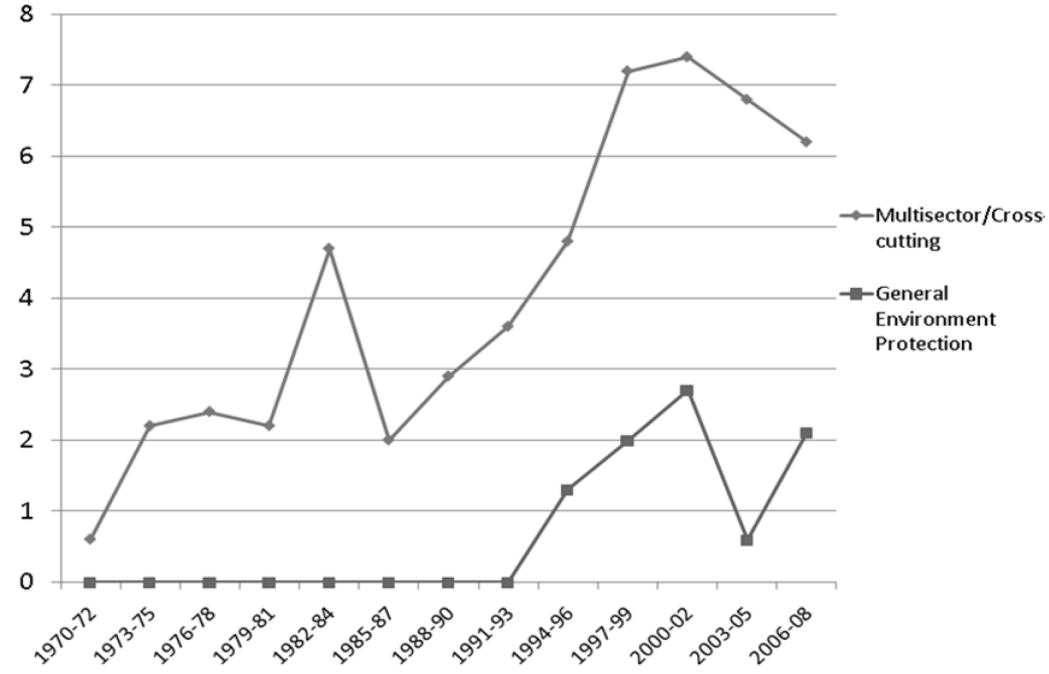
Source: OECD/DAC and OECD/CRS, various years.

Figure 12. Sectoral distribution of total aid (percentage): Multisector/crosscutting and general environmental protection



Source: OECD/DAC and OECD/CRS, various years.

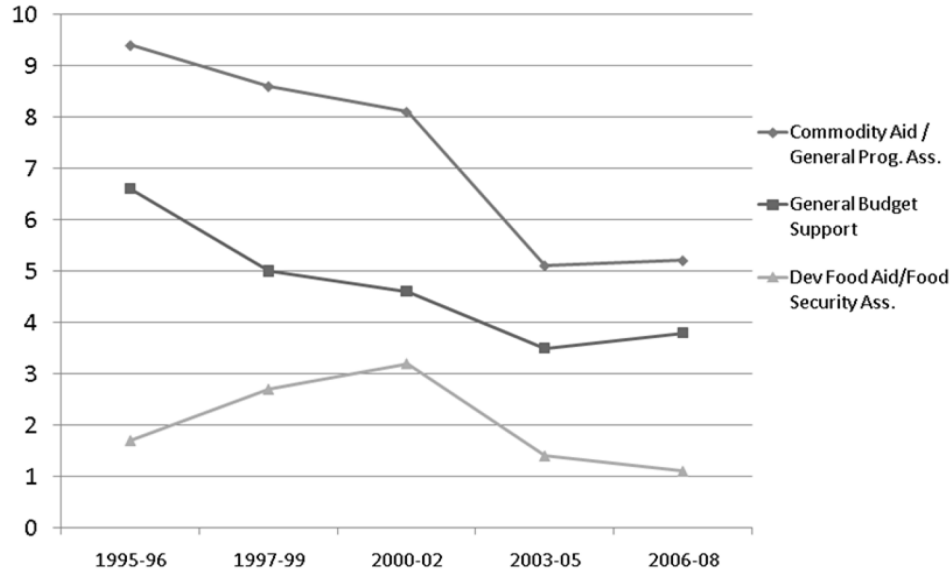
Figure 13. Sectoral distribution of bilateral aid (percentage): Multisector/crosscutting and general environment protection



Source: OECD/DAC and OECD/CRS, various years.

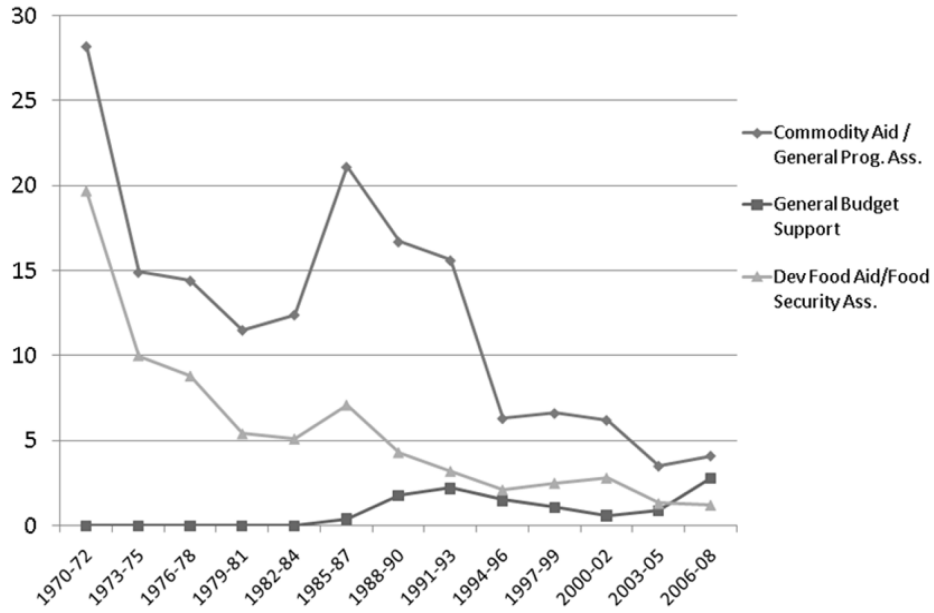
Commodity aid and general program assistance, which was an important sector of aid from the early 1970s and to early 1990s (ranging between 12 and 21 percent of bilateral aid), declined during the next decade reaching about 4 percent in 2006–2008; however, its share which was 9.4 percent of the total aid in 1995–1996 dropped to 5.2 percent in 2006–2008. Development food was an important component of commodity and general program assistance up to 1980s and declined in importance during the 1990s and 2000s. By 2006–2008, its share in the total aid declined to 1.1 (Figures 14 and 15).

Figure 14. Sectoral distribution of total aid (percentage): Commodity aid/general program assistance, general budget support, and development food aid/food security assistance



Source: OECD/DAC and OECD/CRS, various years.

Figure 15. Sectoral distribution of bilateral aid (percentage): Commodity aid/general program assistance, general budget support, and development food aid/food security assistance



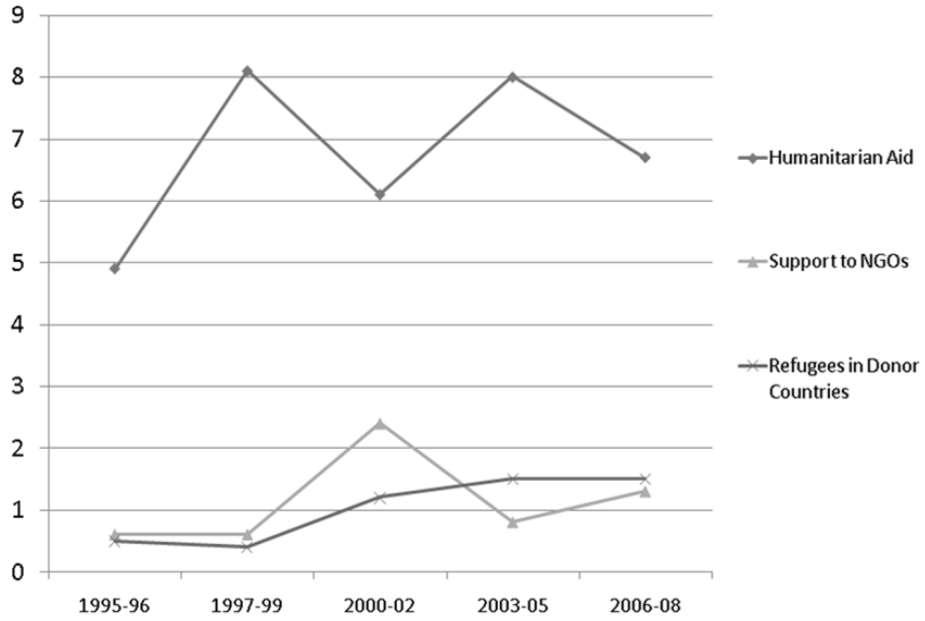
Source: OECD/DAC and OECD/CRS, various years.

General budget support, which was relatively unimportant component of program assistance during the 1980s, increased its share in the total aid during the 1990s up to about 7 percent but subsequently declined to about 4 percent in 2006–2008. Under this form of aid, resources are placed at the disposal of governments to meet the overall deficiency of revenue resources, without earmarking the aid for any sector. Instead, it is left up to recipient governments to allocate among sectors and purposes of aid, with some broad objectives usually agreed upon by the donors and the recipient governments. Thus, it is not possible to allocate such aid to any one sector.

Similarly, humanitarian aid became important during the 1990s and 2000s, as was the case with aid to NGOs. Its share in the total aid increased from 4.9 percent in 1995–1996 to 6.7 percent in 2006–2008.

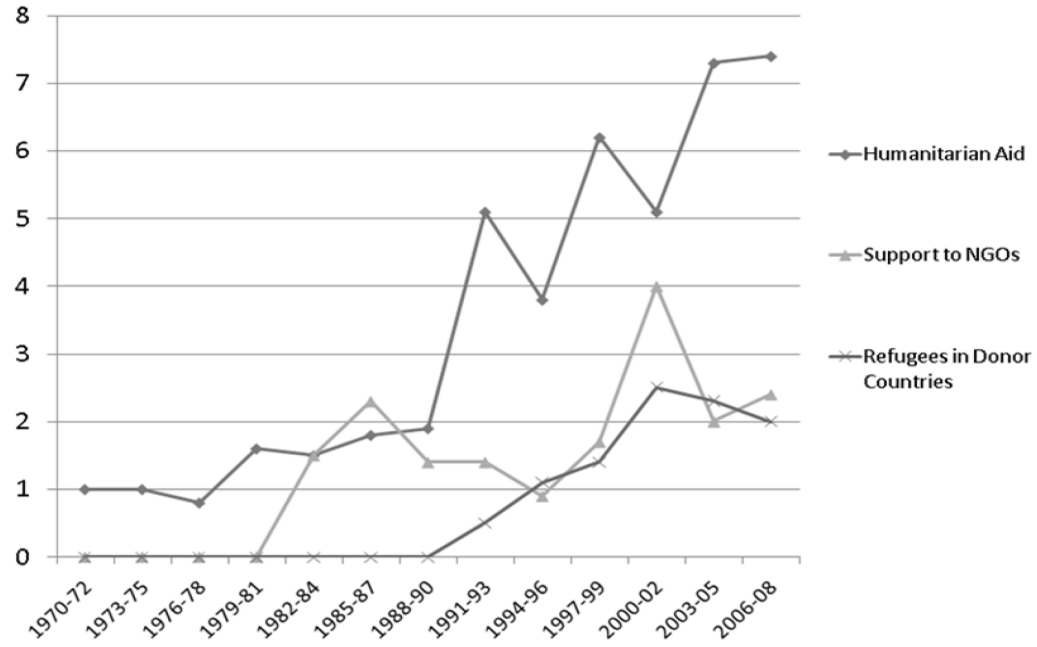
An important item that emerged in the 1990s was assistance provided to repay or cancel old debt in response to debt repayment problems faced by developing countries. The share of this aid ranged from 6 percent to about 17 percent of total aid during the mid-1990s and 2000s; it was a higher percentage of bilateral aid, ranging from 10 percent to 21 percent between the early 1990s and early 2000s (Figures 16 and 17).

Figure 16. Sectoral distribution of total aid (percentage): Humanitarian aid, support to NGOs, and refugees in donor countries



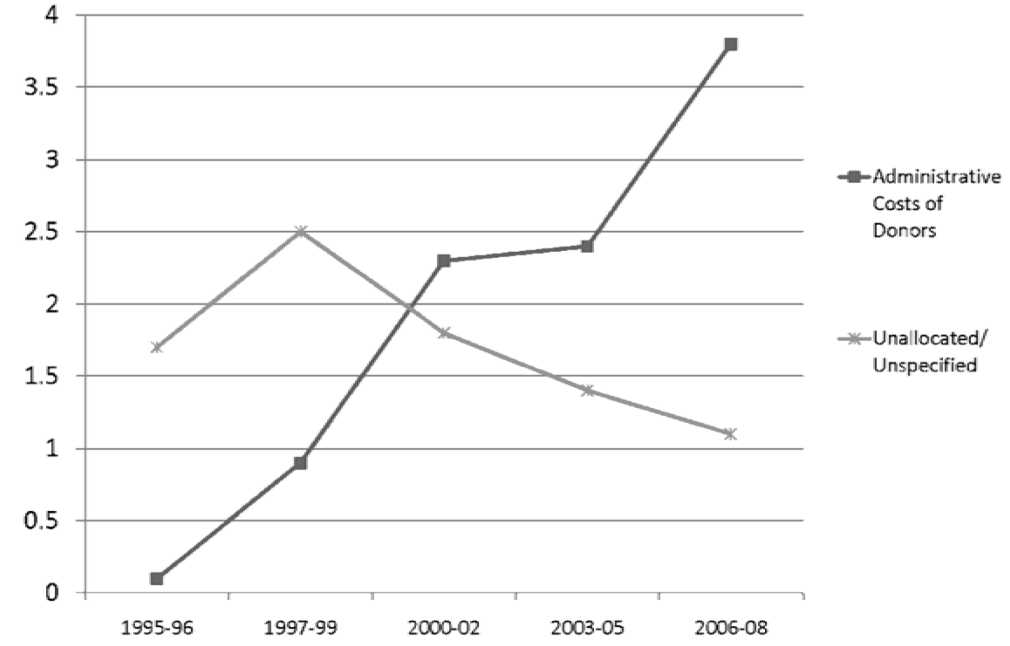
Source: OECD/DAC and OECD/CRS, various years.

Figure 17. Sectoral distribution of bilateral aid (percentage): Humanitarian aid, support to NGOs, and refugees in donor countries



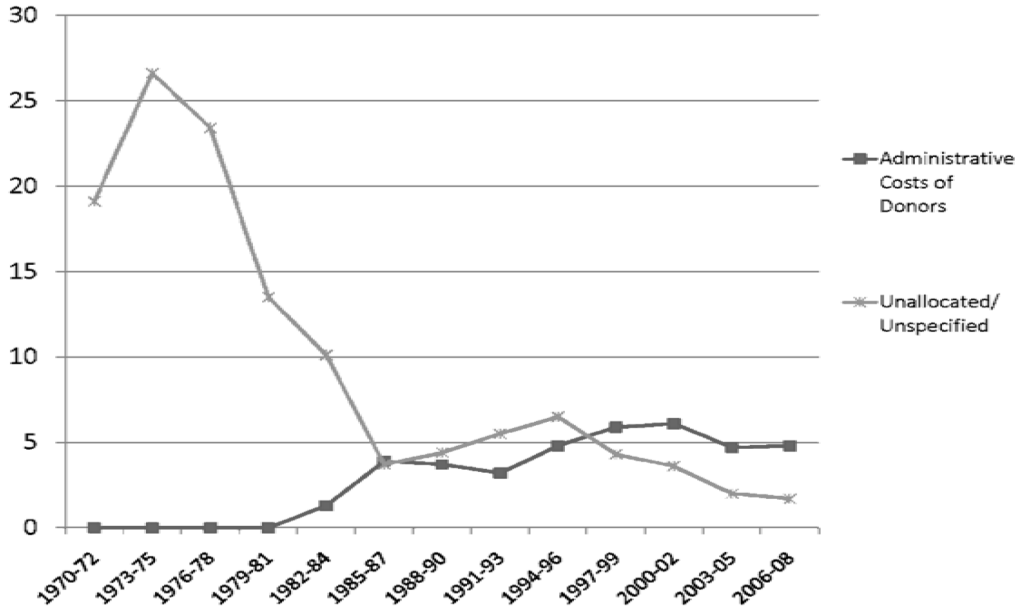
Source: OECD/DAC and OECD/CRS, various years.

Figure18. Sectoral distribution of total aid (percentage): Administrative costs of donors and unallocated/unspecified costs



Source: OECD/DAC and OECD/CRS, various years.

Figure 19. Sectoral distribution of bilateral aid (percentage): Administrative costs of donors and unallocated/unspecified costs



Source: OECD/DAC and OECD/CRS, various years.

3. PATTERN OF AID TO AGRICULTURE: SUBSECTORAL COMPOSITION

To better understand the trend in the flow of aid to agriculture, it is necessary to examine the detailed composition of this aid and how and why the pattern of aid to agriculture has changed over time. Data on the distribution of aid among the different agricultural subsectors are difficult to obtain. The following is an attempt to compile, for some discrete years and mostly from secondary sources, the composition of aid to the agricultural sector. The classification into various subsectors is not strictly comparable over time. A few selected subsectors of aid to agriculture for various years taken from different sources have been grouped to make them as broadly comparable as possible (Table 5).

Agricultural land and water development and management constituted the biggest share of aid to agriculture from the 1980s to 2008. For example, the share of irrigation was around 26 percent in the 1980s; it varied between 19 percent and 39 percent during early the 1990s and between 18 percent and 20 percent during the 2000s.[6]

Agricultural water resources development includes irrigation, reservoirs, hydraulic structures, and groundwater exploitation. Easy accessibility to water is of paramount importance for increasing food and agricultural production. Also, there has been an increasing demand for water for multiple uses, including agricultural production. The fear of future water scarcity has also generated a great deal of concern. In addition, climate change might aggravate the regional and temporal variability of water. An increase in water scarcity might cause interstate or interregional conflicts and thus threaten peace and security. In recent years, these considerations have made investments in increasing and managing water supply crucial for future food supply. However, at the same time, the complexity of formulating water resource and irrigation projects suited to diverse agroecological circumstances has increased due to the recent emphasis on the environmental and social implications (such as resettlement of displaced persons) of such projects, especially for large-scale irrigation projects. This has the effect of slowing down the process of formulation of water resources projects and as a consequence the process of the donors' evaluation and approval of project requests.

Many donors do not favor large-scale irrigation projects involving reservoirs and dams, because they are not considered to be the most practical water management systems for poor farmers, especially those most likely affected by climate change and water scarcity in the coming years. Accordingly, there has been a shift toward a preference for small-scale projects. However, success in implementing small-scale irrigation projects, either groundwater or surface water, requires collective action on the part of the farmers in the allocation and appropriate pricing of water among farming households (OECD 1987). This condition poses a challenge of social and political engineering that is not easily met in traditional societies.[7]

The classification system in the OECD database and other specialized studies did not differentiate between small-scale microirrigation and large-scale irrigation and storage and reservoir systems. It was, therefore, not possible to monitor the consequences of the generally perceived shift from new, large-scale irrigation investment toward either (1) rehabilitation and improved management of current systems or (2) small-scale, community-managed system. Similarly, it was unclear whether aid was used for capital or recurrent costs, both of which are key issues in irrigation development policy with significant implications for project sustainability.

Aid for the purchase, marketing, and distribution of agricultural inputs, including fertilizer, suffered a decline over time, because this activity was considered more appropriate for the private sector.

[6] During the 2000s, for which period data on the breakdown between land and water subsectors are available, there was a decline in the share of land development and an increase in the share of irrigation or agricultural water resources.

[7] These factors may explain why aid to irrigation has not expanded at the rate that is warranted by its importance for both agriculture and adaptation to prospective climate change.

Table 5. Pattern of distribution of aid to agriculture

	1978	1981–81 Average	1990	1995		1995–2007 Average	2005–08 Average
Appraisal of agricultural resources	0.17	0.19	19.4	39.0	Agricultural land resources	5.6	2.0
Development & management of agricultural resources	26.62	25.52			Agricultural water resources	19.3	18.0
Supply of agricultural production inputs	1.66	2.84	3.0	6.8	Agricultural inputs	4.7	2.0
Supply of fertilizers	4.99	5.67					
Crop production	11.65	11.45	11.9	5.1	Food crops production	4.3	7.0
					Industrial/export crops	2.3	3.0
Livestock development	4.99	3.75	1.5	3.4	Livestock	3.7	2.0
Agricultural training & extension	3.33	2.43	9.0	10.2	Extension	1.5	6.0
Agricultural research	3.33	5.78			Education/training	1.6	2.0
					Agricultural research	6.9	10.0
Agricultural services	19.97	17.12	16.4	6.8	Agricultural services	5.4	3.0
					Protection / pest	0.9	0.0
					Financial services	0.0	1.0
					Agricultural cooperatives	0.7	1.0
					Livestock/veterinary services	0.0	1.0
Agricultural unallocated	23.29	25.25	38.8	28.8	Agricultural policy and administration	21.9	22.0
					Agricultural development	16.7	13.0
					Agrarian reform	2.0	1.0
					Alternative development	2.6	6.0
TOTAL	100.00	100.00	100.0	100.0	TOTAL[1]	100.0	100.0

Sources: For 2005–2008 average, ONE 2009; for 1995–2007 average, Oxfam Briefing Paper 2009; for 1990–1995: FAO 2000; for 1978 and 1980–1981, OECD 1983.

Notes: For 1990 and 1995: these items (for example, agricultural policy and administration, and so on) are assumed to be included in agriculture and others; same is assumed to be true for 1978 and 1980-81.

[1] The average figures for 2005–2007 probably include financial and livestock services as a component of agricultural services, whereas plan protection and pest control could be included in agricultural services in the figures for 2005–2008.

The same was true for crop production of export and foodcrops, the share of which (in agricultural aid) declined from around 11 percent during the late 1970s, 1980s, and early 1990s to 5.1 percent in 1995. However, an increase of its share to 6 percent in the latter part of the 1990s and early 2000s was not easily explained, unless aid to the sector was assumed to include policies in support of foodcrops, such as subsidies and price support programs. The definition of crop production aid in the OECD classification system leaves room for ambiguity. In the earlier days, it probably referred to the parastatals involved not only in the production of food and, most important, export crops, but also in providing necessary inputs and reliable outlets for farms (OECD 1998).

The share of agricultural research went up significantly, from 3.3 percent during the late 1970s, to 5.8 percent in the early 1980s, to 7 percent in the late 1990s and early 2000s, and to 10 percent in the late 2000s, which was the highest share in the three decades. Support for bilateral research declined and was replaced, to some extent, by aid channeled multilaterally, such as through the Consultative Group on International Agricultural Research (CGIAR).

The share of extension and training in agricultural aid was smaller—around 2.5 and 3.2 percent during the 1980s and 1990s. This share increased to only 8.0 percent in 2005–2008. The 1980s did see a period of great enthusiasm and high hopes for the "visit and training" system of extension; however, this system was subsequently abandoned, as high expectations were not fulfilled and this, therefore, had a dampening effect on aid. During the 1990s and 2000s, various experiments and innovative approaches for designing "extension and training" systems were attempted in different countries and adjusted to the circumstances of each country. Some attempts involved farmers and farmers' groups to link them with the extension and research in an interactive way. There was some increase in aid to finance these innovative approaches. The field of extension and training required considerable investment in local resources, because it was extremely manpower intensive, requiring large current expenditures, such as salaries and benefits. Thus it was not an ideal scope for foreign aid, except for financing the training of "trainers" abroad.

The share of agricultural services of all kinds in agricultural aid was around 17 to 20 percent during the 1980s, but declined to 8.7 percent in the 1990s, and then to around 5 percent during the 2000s. In the absence of data, it is not possible to analyze changes over time in the different types of services as recipients of aid. This decline in the share of services occurred because many of the services—such as marketing and distribution of inputs and outputs, supply of agricultural credit, cooperatives, and so on—had been, or were intended to be, taken over or transferred to the private sector.[8]

The provision of aid for agricultural credit to farmers, including the strengthening of credit institutions, was important in the 1970s and 1980s. However, problems soon arose with the effective delivery of credit. The fear of loss, defaults, or non-repayment due to crop failures or a fall in prices constrained the sustainability of the credit institutions. Many countries that had a policy of subsidizing agricultural credit in the professed interest of small farmers ended up giving loans to large farmers instead, often for nonagricultural purposes. The defaults of loans advanced by government-owned credit institutions were compensated by government subsidies and frequent writing off of debts. This policy, in turn, often encouraged the habit of defaults and, as a consequence, endangered the viability of credit institutions. This experience adversely affected the inflow of aid in support of agricultural credit. In later years, the objectives and processes of aid for agricultural credit were reconsidered. It was recognized that it might be sensible to initially use agricultural credit to avoid or repay consumer debt as well as to combine finance for farm and nonfarm rural activities (including rural industries). The logic was that farmers usually combine farm and nonfarm activities, especially with the diversification of the rural economy. Instead of agricultural credit focused on a special commodity or purpose, there was an attempt to broaden and widen the provision of the rural financial services in general, providing multiple types of

[8] It is questionable whether the shift of many essential agricultural services from the public to the private sector, which was part of a general trend during the 1990s and 2000s, was justifiable in all countries at all times or all stages of development without appropriate sequencing. However, as subsequent experience demonstrated in quite a few countries without institutional frameworks for rapid development of the private-sector capacity, this policy led to a decline in the quantity and efficiency of agricultural services.

rural credit. The design of such viable, efficient institutions took time and hence slowed the flow of aid. Experiments with pilot schemes were often performed before an institution or mechanism could be selected for adoption on a large scale. This process inevitably took time.

Assistance to cooperatives and producer organizations—often a vehicle or mechanism for the provision and effective use of aid—is considered vital for involving farmers in the design and dissemination of new farming techniques, including the use of inputs, adjusting where appropriate to local circumstances. Empowerment of farmers is intended to ensure a greater transparency, accountability, and responsiveness to the needs of the local population on the part of the government institutions that provide at the local level agricultural services, such as credit, marketing, and extension. In recent years, nongovernmental organizations (NGOs), civil society organizations (CSOs), and farmers' associations are increasingly considered as supplements to government institutions or even as alternatives in cases of market and state failures. Both these sets of institutions (NGOs and CSOs), though viable and efficient, take time to evolve and to absorb large amounts of aid.

The post-1995 period recorded an increase in two relatively new items of agricultural aid: (1) agricultural policy and administration and (2) alternative development. The first subsector, according to the OECD, included agricultural sector policy, planning and programs, aid to agricultural ministries, institutional capacity building, and advice. It was intended to build institutions and human capital for designing national agricultural policies and programs; increasing the supply, quality, and rurality (rural orientation) of scarce skills and institutional capacity; improving national food information systems to collect, process, and use reasonably timely and reliable data for policymaking purposes; and improving coordination of aid with national investment programs at the country level (OECD 1987). These concerns, initially expressed in the late 1980s, continued to be significant in the 1990s and 2000s, especially in the low-income developing world (World Bank 2007).

The task of designing and formulating agricultural projects has increased in complexity over time, as several new elements are incorporated in such projects. The new components include, for example, environmental impact assessment, including adequate soil and land surveys; involvement of the prospective beneficiaries in the design and implementation of projects, with the assistance, wherever needed, of local farmers' groups, including women and NGOs, in the formulation and implementation of projects as they play an important role in producing and marketing agricultural crops.

The second item—alternative development—includes projects aimed at reducing illicit drug cultivation by diverting farmers toward the production and marketing of alternative crops or agriculture-related activities. This activity has assumed an increasing importance in view of the considerable illegal drug trafficking within and across countries.

The other two items—agrarian reform insofar it includes land ownership and tenancy reforms as well as agricultural development—have been the traditional items for the provision of aid. According to OECD database, agrarian reform comprises agricultural sector "adjustment" programs, as well as agricultural development, including farm development and integrated development projects. The lack of data does not permit an examination of the relative changes over time in aid to the specific types of agrarian reform and agricultural development. The above-mentioned four types of aid are lumped together in Table 5 and aid for each type cannot be distinguished. These four types of agricultural aid amounted to around 40 percent of total agricultural aid during the late 1990s to mid-2000s. This compares with the sum of unallocated items in the years from 1980s to mid-1990s, an increase by about 35–40 percent.

The data on the composition of agricultural aid in greater details for two time periods in the 2000s broadly confirm the conclusions drawn from data over the longer period, even though the two sets of data are not strictly comparable (Table 6). For example, the percentage of agricultural aid going to (a) agricultural policy and administrative management and (b) agricultural development together accounted for 35 to 42 percent for both bilateral and multilateral aid, even though the former (a) had a greater share of multilateral aid than the latter (b). Similarly, aid for land and water resources was second in importance in both bilateral and multilateral aid with water resources development taking precedence over land management. The share of aid for alternative development increased significantly over the 2000s confirming what is indicated in Table 5; it was more important in bilateral aid than in multilateral aid. The

share of agricultural extension increased during the 2000s in both bilateral and multilateral aid. There were differences between bilateral and multilateral aid in respect of aid for agricultural extension and education. Aid for agricultural extension had a greater importance in multilateral aid than in bilateral aid, whereas the aid for education and training was relatively more important in multilateral than in bilateral aid. Agricultural research constituted a larger share of bilateral than of multilateral aid. Aid for agricultural services was more important for multilateral aid than for bilateral aid. Therefore, the pattern of aid in the two sets of data (Tables 5 and 6) generally confirms each other. However, there are some differences in respect of their item-wise priorities between bilateral and multilateral aid.

Table 6. Composition of aid to agriculture (2000–2003 and 2005–2008)

	Total Bilateral		Total Multilateral	
	2000–2003	2005–2008	2000–2003	2005–2008
Agricultural policy and administrative management	26.3%	17.7%	29.3%	28.8%
Agricultural development	15.6%	16.1%	13.5%	6.9%
Agricultural land resources	8.7%	2.8%	2.0%	1.6%
Agricultural water resources	14.5%	17.4%	21.3%	18.0%
Agricultural inputs	6.2%	2.3%	0.2%	0.7%
Food crop production	3.9%	4.8%	9.8%	10.1%
Industrial crops/export crops	1.8%	1.2%	1.0%	6.3%
Livestock	1.8%	1.1%	4.0%	4.2%
Agrarian reform	1.0%	1.5%	0.0%	0.6%
Agricultural alternative development	1.7%	9.6%	0.0%	0.3%
Agricultural extension	1.4%	2.4%	5.5%	11.1%
Agricultural education/training	2.6%	2.8%	0.1%	0.1%
Agricultural research	7.6%	14.7%	3.0%	1.8%
Agricultural services	1.3%	2.0%	4.5%	5.6%
Plant/post-harvest protection and pest control	0.8%	0.6%	1.2%	0.2%
Agricultural financial services	2.8%	1.0%	3.1%	1.7%
Agricultural cooperatives	1.2%	1.1%	0.6%	0.6%
Livestock/veterinary services	0.7%	0.9%	0.9%	1.4%

Source: Coppard 2009.

In sum, there was a change in the composition of agricultural aid. Thus, the decline in the share of agriculture in the total aid was partly explained by changes over time in the priorities in respect of the item-wise composition of aid to agriculture. For example, on the one hand, there was a decline in the share in aid of such items as supply of inputs, small-scale irrigation, selected agricultural services, and crop production; on the other hand, there was an increase in aid for the prevention of illicit drugs, which often achieved limited success in expanding alternative crops, as well as for institution building and capacity improvement, which was a slow process and did not absorb large absolute amounts of aid.

4. DEVELOPMENT OF INTERNATIONAL CONSENSUS ON AID PRIORITIES

Starting in the late 1970s and 1980s, the central objective of development strategy was poverty alleviation. Poverty was conceived not only in terms of income poverty but also in terms of the social and human dimensions of poverty. Similarly, the emphasis shifted to the broader concepts of food security and human and social development. Food security was conceived in terms of not only adequate and stable food supplies in the aggregate but also access to basic food for all, especially the poor, the disadvantaged, and marginalized populations. Human development was conceived to include not only a reduction in income poverty but also an increased access to nutrition and education, reproductive health, and family-planning services, as well as safety net measures and social protection.

Once the multiple dimensions of poverty came to the forefront of international consensus among development thinkers and the aid community, it was agreed that in order to alleviate poverty, income growth had to be supplemented by the alleviation of nonincome dimensions of poverty through investment in education, health, and nutrition. Furthermore, it was emphasized that not only were health and education independent dimensions of investment in human development and poverty reduction, but also they had a positive impact on, or contributed significantly to, the increase in agricultural output and income. A healthy worker is a productive worker and can attend regularly to farm work without being hobbled by disease, such as malaria and tuberculosis. These diseases debilitate and sap the energy of the farm labor and reduce productivity. The devastating effects of HIV/AIDS on the quality and quantity of labor supply due to premature death and debilitation of capacity, especially of young workers and of technical and professional personnel, have been amply recorded.

Similarly, a literate farmer with primary education is proficient in adopting new technologies; he can follow well written instructions on improved farming techniques and appropriate cropping patterns, use of inputs, and irrigation methods. Thus, the effectiveness of extension and training services is greatly enhanced when farmers are literate, and it is even better if they have primary education. Accordingly, investment in health and education not only constitutes core components of human and social development but also contributes to agricultural growth.

Simultaneous with the emphasis on poverty alleviation and social development as the central objectives of development strategy, a series of international and UN conferences, starting in the 1980s and continuing into the 1990s and 2000s, focused on various individual components or aspects of social and human development, such as primary health, drinking water supply and sanitation, child mortality, family planning, population, and education. These conferences led to a consensus among the international development community, including both aid recipients and donors as deserving priority attention. Subsequently, many of those components were incorporated in the Millennium Development Goals (MDGs).[9]

During this period, the various OECD Development Cooperation reports analyzed how the international consensus on these development goals guided the donors' formulation of aid strategy. Each resolution and goal of the international development community included arrangements for periodic reviews, including monitoring and evaluation of progress in achieving these goals. In its annual reviews, the OECD/DAC (as the coordination forum for all donors) occasionally elaborated on the types and patterns of development assistance needed to promote the objectives incorporated in the international development consensus.[10] At the same time, the OECD/DAC periodically reviewed in its annual reports the donors' performance of aid provision with a view to promoting these goals.

[9] Seven of the eight development goals are (1) eradication of extreme hunger and poverty; (2) universal primary education; (3) reduction of child mortality; (4) improvement of maternal health; (5) combating malaria, HIV/AIDS, and other diseases; (6) gender equality and empowerment of women; and (7) environmental sustainability including safe drinking water and urban slum improvement. Agricultural investment to increase food supply in this context was considered an important pathway, but only in those developing countries in which the majority of the population depended on agriculture for reducing hunger.

[10] The observations of the OECD/DAC reports during the early 2000s illustrate the evolution of the development community's understanding of the contributions of the various social sector components to the development objectives. "Primary education continues to be the most effective instrument for pro-poor growth in developing countries, while returns decline at

As stated earlier, and as confirmed by the international consensus, the economic and social infrastructure and services sectors continued to have the largest share of aid right from the early days. Because these two sectors provided the public goods and services that were unlikely to be provided by the private sector, the responsibility of the public sector and government to provide these public goods was recognized. Unlike foreign private investment, foreign aid was primarily government-to-government assistance; thus, it was expected, right from the beginning, that foreign assistance would contribute significantly to the financing of such public goods. This was particularly true for social infrastructure and services, such as education, health, population, and reproductive health programs, as well as water and sanitation. Following deliberations on the criteria and goals in the social sector, the donor community not only extended aid for the health and education sector but also increased the share of primary health and basic education in the aggregate. Accordingly, from 1996 to 2005, the share of basic health in the assistance to health sector increased from 15 to 25 percent, while the share of primary education in the aid to education sector increased from 15 percent to about 50 percent (OECD 2004).

Aid for strengthening government institutions and humanitarian assistance increasingly constituted important elements of international consensus. There was an increasing realization during the 1990s and 2000s that good governance was essential for an efficient use of development resources. The attention of the development community was drawn to the importance of ensuring and promoting the efficiency of government agencies in formulating, implementing, monitoring, and evaluating development programs and policies. At the same time, major importance was attached to the integrity and control of corruption in the use of public resources.

Humanitarian aid, in response to national and human-made disasters and relief operations, was on the rise due to increasing incidences of such occasions and to a recognition that the international community had an important role in mitigating the adverse effects of such circumstances. Aid to the civil society—that is, institutions that promoted people's participation in development—increased in importance during the 1990s and 2000s. This was partly in recognition of both the development and humanitarian roles increasingly played by civil society and grassroots organizations. Also, in many recipient countries with weak governments, they provided valuable services in supplementing the efforts of the national administrative and implementation agencies.

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higher levels of schooling and increased investment in tertiary education is critical for banking, trade, and investment activities" (OECD, 2001).

The demographic gift "comes about as population growth declines, thus reducing the share of the population below working age; with the more of the population working, growth increases. The demographic gift in turn calls attention to the implication of the decline. This includes girl's education and access to reproductive health care" (OECD 1993).

A key reason that growth rates in tropical countries are likely to be low is those countries have a high incidence of "death and debilitation from tropical diseases, for example, malaria and cholera, that cannot propagate themselves as effectively in climates with cold winters. There is now a well-documented capacity to fight these diseases, as well as tuberculosis and other diseases of poverty that also strike temperate climates. That capacity needs to be extended to other poor countries and regions" (OECD 2000).

Aid that assists general economic development, including aid to support economic stabilization, policy reforms, and adjustments to public expenditure priorities, can have a wide impact on the access of poor people to basic education, primary health care, and family planning services (OECD 2004).

5. POSSIBLE REASONS FOR DECLINE IN AID TO AGRICULTURE

The absolute amount of the total aid to agriculture in real terms (constant prices of 2007) increased from the early 1970s to the late 1980s and early 1990s; it then started to decline until 2003–2005. The volume of bilateral aid to agriculture continued to increase until 1985–1987 and then started to decline. The decline in multilateral aid to agriculture between 1982–1984 and 1985–1987 was steep enough to more than offset the rise in bilateral aid for that period, so that both types of aid together started to decline from 1985–1987 onwards.[11] At the same time, the total aid to all sectors in constant prices of 2007 continued to rise until 1988–1990 and then underwent a decline until 2003–2005; however, it increased by 10 percent between 2003–2005 and 2006–2008. Thus, the rise and fall in the aid to agriculture followed broadly the same pattern as that in total aid to all sectors (Tables 3 and 4). Similarly, the share of aid to agriculture in the total aid increased until 1982–1984 and then started to decline on a continuous basis until 2003–2005; it then recorded an increase by about 10 percent in 2006–2008. Thus, the rise and fall in the share of aid to agriculture in total aid followed the same pattern as the rise and fall in total aid, with the exception that for a brief period between 1982–1984 and 1988–1990 the share of aid to agriculture continued its decline even when total aid was on the rise (Tables 3 and 4).

In light of the foregoing review and analysis of the trends in aid to agriculture during the last several decades, one can provide an overview regarding the various possible reasons for the phenomenon. In the context of information available to date, however, it is difficult, if not impossible, to assign relative importance or weight to the various contributing factors.

The evolution of international consensus on the priorities of aid from the late 1980s to the present (as discussed earlier) placed agriculture as only one—albeit an important one—of the interrelated and mutually supportive components of a broad program of economic as well as social and human development and poverty alleviation. It was in this context that the World Food Summit in 1995 stated two broad guidelines for government investments and foreign aid in agriculture. First, more had to be invested in the human skills and institutional capacities of government so as to be able to interact fruitfully with the millions of private individuals on whose willingness to invest the growth of food supply ultimately depends. Second, despite much government effort within the agricultural sector, progress would be limited unless appropriate policy signals were also given at the national level to private individuals. Thus, a consensus emerged that what was crucial for growth in the agricultural sector were policies, institutions, and incentives that encouraged farmers to save and invest, while investments in supporting sectors, such as economic and social infrastructure, should be provided by the public sector to enhance the profitability of investments in farming. At the same time, it was recognized that certain investments within the agricultural sector were in the nature of public goods; the private sector would be unwilling or unable to undertake or provide these investments.[12]

[11] The distinction between nominal and real terms is often made in order to underscore the point that an increase in nominal aid may simply reflect a rise in prices, whereas the real value of aid in terms of physical goods and services may fall if the rise in prices more than offsets the increase in aid in nominal prices. Although this is a legitimate way of looking at real aid for analytical purposes, it is not how policymakers and donors make decisions from year to year on budgets, public expenditures, and foreign aid (which is part of public expenditures). Donors and recipients make decisions based on nominal values and prices. When the donor community is exhorted to provide 0.7 percent of gross national product (GNP) as aggregate development assistance over a period of time, it is understood by policymakers to be in nominal terms. Because it is assumed that the donor country's GNP is most likely to rise in the medium to long term, a fixed ratio of aid-to-GNP of 0.7 percent would always imply a rise in aid in nominal terms. However, by measuring the conversion of aid flow from nominal to real terms, a pressure may be exerted on donors to increase nominal aid; otherwise they would have done so in order to compensate for a rise in prices. In the Appendix, movements in aid flows are shown in nominal prices, as well for comparison with those in real prices.

[12] These include, for example, as explained later, research, extension and training, land preparation and reclamation, drainage, and irrigation. Large-scale irrigation requires public investment, whereas small-scale irrigation requires collective action, which needs to be facilitated by the government. This approach became widely accepted during the late 1990s and 2000s

Increasing Recognition of Supporting and Supplementary Role of Rural Infrastructure: Physical and Social

Experience has shown that investment in infrastructure when they are provided to serve the rural areas such as rural roads, transport, communications, and energy, and so on was essential for increasing food and agricultural production and to facilitate rural-urban linkages. Access to markets for outputs and inputs as well as adequate and timely information about their prices determines farmers' decisions to produce and invest. The high return of investment—for example, in rural roads and rural electrification—on rural income growth and poverty reduction have been amply demonstrated in recent times.[13] Accordingly, the share of total aid to investment in economic and physical infrastructure was on the increase from the early 1970s to mid-1990s.

While alleviation of the non-income dimensions of poverty—such as equitable access to such services as health (basic health and primary health services), education (primary education and adult literacy), and nutrition (nutritional supplementations, impact of child and maternal mortality)—was high on the development agenda, it was at the same time recognized that investment in social sector such as education and health, not only directly promoted human and social underdevelopment, but also to indirectly stimulated agricultural growth and income growth—via improvement in labor productivity and output.

The two major social sectors—education and health—had more than agriculture's share in total aid throughout the period starting in the 1970s. Thus, this was not a new phenomenon that occurred only when the share of aid to agriculture started to decline in mid-1980s. However, the two social subsectors that recorded significant increases starting in the 1990s were water supply and sanitation and population programs. During the 1980s, the share of each was very small. Rural water and sanitation programs were considered helpful for the health and nutrition of the agricultural population, with indirect beneficial effects on agriculture. Population programs designed to reduce the rate of growth of population and thereby the pressure of rural population on land helped prevent or slowdown the subdivision and fragmentation of landholdings and thus avert a decline in productivity.

New and Emerging Claimants on Aid

A variety of new claimants on aid resources emerged, propelled by both domestic public support and international public opinion. They included humanitarian aid in response to human-made and natural disasters, emergency food aid, debt relief for the poorest countries trapped in heavy debt burden and consequent financial crises, and prevention of drug and narcotics trafficking.

A few of these sectors had an increasing share in foreign assistance, especially during the 1990s and 2000s, and could be considered to be strongly competitive in making an inroad into the aggregate resources that were available for development assistance. There were also a few additional claimants on the aid resources emerged during the late 1990s and 2000s, which included general budget support, environment protection, and nonfood commodity assistance (Figures 3–4, 14–15, and 16–17).

Factors Specific to the Agricultural Sector

The factors discussed in the earlier paragraphs, which tended to reduce the share of agricultural aid, were external to the agricultural sector; at the same time, there were factors which were specific to agricultural sectors that militated against aid to agriculture. Several reviews of aid to agriculture by the donors during the late 1980s and early 1990s, including those in the OECD/DAC Development Corporation reports of

[13] However, the question about the extent to which aid to economic infrastructure and services, as well as to such social infrastructure and services as education and health (including basic health and nutrition), is devoted to rural areas cannot be answered in the absence of detailed data on the location of such expenditures. In view of an increasing emphasis in recent years, especially during the 1990s and 2000s, on the correction of "urban bias" and in favor of investment in the rural social and economic infrastructure, it is reasonable to assume that there has been some shift in many countries in their location toward rural areas.

1987 and later years, identified a number of reasons for the poor performance of the agricultural sector's aid-financed projects. For example, the reports noted long delays in completion, or partial or total noncompletion; cost overruns; and large supervision costs in relation to total costs. In addition, two important factors considered essential for ensuring the viability of agricultural projects were frequently missing: provisions for (a) recovering the costs of investment projects from the users of the output or services, especially for irrigation projects, and (b) current expenditures for the operation and maintenance of the aided projects. The lack of provision for the latter was a serious handicap for the sustainability of projects once project aid was completed.[14] These shortcomings were largely attributed to such factors as inadequate capacity for policy analysis, formulation, and implementation of projects, which resulted, in turn, from the shortage of high- and midlevel well-trained technical personnel.

Closer examination of these shortcomings led to several conclusions. For example, agricultural development—no less than economic development, in general—depended on institutions and the capacity of human capital at the national and local level for designing and implementing programs and projects. In a few traditional areas of aid to agriculture, such as extension and training and research, these limitations emerged as very critical, especially whenever new approaches had to be introduced and evaluated before large-scale aid efforts could be launched.

It was in this context that agriculture was incorporated in what were called, during the 1980s and 1990s, "integrated rural development projects." This incorporation was intended to ensure a cohesive framework for investment in interrelated agricultural and rural development projects. Various components, such as research, training, extension, irrigation, marketing, and input supply, were put together under one administrative authority for the purposes of financing and implementation. The administrative complexity of such projects, which combined the multiple functions of different ministries and agencies under one authority, soon became apparent, eventually leading to a reconsideration of and retreat from this approach. The process of experimentation, including the introduction over time of different approaches to the provision of aid to the diverse components of agricultural investment, did imply that the aid flow over time slowed or was interrupted as new approaches were designed and modified or abandoned.[15]

It was increasingly realized that the design and effectiveness of rural institutions engaged in the provision of services in the agricultural sector were closely linked with a country's totality of administrative structure, including procedures for recruitment of staff, promotions, salaries, and compensations, as well as incentive structures. Thus, agricultural development institutions could not be treated in isolation. In a few countries, however, the political leadership was strong and committed enough to make changes in the agricultural institutions as exceptions, independently of the rest of the government.

The success of the Green Revolution in Asia in the 1960s and 1970s was based on the availability of high-yielding seeds, which, when combined with water and fertilizer, led to considerable increases in output. This revolution was a relatively simple, straightforward approach focused on increasing the production of one or two cereal crops—wheat and rice—mainly on large or medium farms in the most fertile regions with adequate water supplies, either rainfed or irrigated. State agencies played a major role in delivering the package of inputs without regard to the variety of social and environmental considerations; these considerations became important to aid policy in the 1990s and 2000s. As development assistance to agriculture moved away from the comparatively simple technical fix of resource transfers that characterized the Asian Green Revolution, the complexity of agricultural projects increased and the associated transaction costs for development agencies inevitably were greater, not to speak of the fact that the second-generation problems following the Green Revolution were yet to emerge. The task of spreading the benefits of Green Revolution to agroecologically unfavorable regions and to

[14] These shortcomings were more frequently observed in Africa than in other developing regions. Since the late 1980s, the relative allocation of aid shifted to Africa as donors paid increasing attention to the lackluster performance of agriculture there . (Lipton 1987; Lipton and Paarlberg 1990; von Braun et al. 1993).

[15] For many donors under pressure to increase aid effectiveness, particularly in an era of declining aid flows, agriculture appeared as a risky, expensive, complex area in which to invest for apparently dubious returns.

different cereal crops as well as to small and marginal farmers was complex and challenging. All these factors posed difficult technological, sociological, and political problems that were not easy to resolve and that did not lend themselves to the formulation of projects at the same speed as before in order to quickly absorb large volumes of aid.

This awareness among donors led them to devote an increasing proportion of aid to build up institutions and organizations in order to train specialized personnel for agriculture and to encourage civil society organizations and NGOs to supplement or provide alternatives to government institutions. However, all these efforts to build institutions and human capital needed to formulate and effectively implement agricultural projects were very time consuming and were not assured of quick success.[16]

At the same time, there was the need for reforms of macro- as well as micro- and sectoral policies in order to provide incentives for farmers and to encourage their willingness to produce and invest. In the absence of these two conditions, that is, institutions and appropriate policies, returns from agricultural investment, both private and public, would remain low, thus discouraging both aid flow and domestic investment.

In many countries, input and output prices, including taxation and subsidy policies, reduced farmers' profits from production and investment. All these factors which adversely affected the returns from investment projects turned the donors' attention to policy reforms—both sectoral and macro, including exchange rates or tariffs or subsidies or taxes that affected the profitability of agriculture. Closely related were the fluctuations in outputs and prices caused by variations in weather, pests, and diseases, as well as by the variability in the supply and prices of inputs. Many developing countries did not have insurance schemes for managing such risks, and this adversely affected the flow of credit to agriculture. This emphasized the need for intervention by the government for the stabilization of prices, which included such measures as the creation and the management of national food reserves as well as the management of food imports and exports.

Attempts were made to remedy some of these shortcomings by providing new or different types of aid such as program or sector aid in addition to project-based aid to agriculture. These types of aid adopted a comprehensive approach towards the agricultural sector as a whole or to a subsector. They included aid for institutional reforms and for building human capacity. These types of policy-based lending, included provisions for wide-ranging policy reforms bearing on agricultural prices, taxes, and subsidies, and so on as well as on agricultural development institutions dealing with credit, marketing, extension, public good stock management and trade regulations—all of which affected the profitability and viability of the agricultural sector or a subsector.

To illustrate, the functions that were previously performed by the state in the provision of such services as the marketing of outputs and supply of inputs such as seeds, fertilizers, pesticides, or credit, and so on or small-scale irrigation or even some types of extension or research were considered in many instances as part of the private sector's responsibility. The government-to-government development assistance or foreign aid was not, therefore, considered appropriate for such purposes.

It has frequently been argued that the decline in the share of agriculture in total aid, in particular in the 1990s, was due to the international development community's complacency regarding food availability in the world. This was a period of ample supplies and low food prices in the world market. However, the abundance was mainly due to large increases in production in the major food-exporting countries, including advanced, countries, and major food-exporting developing countries, such as Argentina and Brazil. At the same time, the two largest food-consuming countries—China and India—increased the degree of their food self-sufficiency and reduced their import demand, thus reducing the pressure of demand in the world market.

The phenomenon of low food prices during the 1980s and early caused the export interests in developed countries to oppose aid for increasing production and supplies in the developing world, which

[16] It took time for the implementation of policy reforms and the results of such reforms to become visible and effective. The process of negotiations and agreements on policy conditionalities between donors and recipients took time, often slowing the flow of aid.

could further depress world prices. Low prices meant low returns from investments in agricultural aid projects, thus discouraging donor countries' aid efforts. This was indeed a very short-term view and did not take into account the long-term trends in the world food supply and demand balance. For one thing, the increase in food production in the developing countries like India was concentrated on the supply of major cereals (mainly rice, wheat, and corn), accompanied by rising imports of noncereal crops, such as oilseeds. In most of the low-income developing countries, food production did not record a substantial increase. In fact, by the end of 1990s, the developing world was increasingly beset with the problems of water and land scarcity (in addition to a long-term decline in the growth rate in yield) acting as constraints on the future food supply. At the same time, there was the prospect of growing demand for food, including livestock products and fruits and vegetables, from an increasing population with a higher per capita income. Some forecasts, on the basis of this analysis, indicated an eventual rise in food prices.[17]

Institutional Arrangement in Donor Agencies

Another set of reasons for the declining share of agricultural aid were related to the administrative and bureaucratic arrangements in the donor countries for making the intersectoral allocation of aid. There was always a competition among the various sectoral ministries—for example, agriculture versus not only industry and transport, but also health, education, energy, and environmental protection. Moreover, in the 1990s, the structure of the aid bureaucracy in the donor countries was reorganized on a regional or subregional basis, rather than on a sectoral basis. This meant that each group of generalists or bureaucrats decided the priorities of aid allocation for their own region or subregion; subject-matter specialists, who were few in number, did not have much influence on the intersectoral aid allocation.[18] To emphasize the point, in some important donor countries and agencies, agriculture was subsumed as just one component among many such departments or sectors—for example, in the World Bank, agriculture was incorporated into "Sustainable Development Network," while in the DFID in the UK, it became part of "Rural Livelihoods."

In recent years, many aid agencies, both multilateral and bilateral, decided to downgrade their technical and professional staff required for formulating, designing, and overseeing agricultural projects. This occurred even though there was a realization, based on experience, that donor agencies required a considerable amount of technical expertise to perform such functions, especially since multiple and increasingly complex considerations had increasingly to be incorporated in the aid projects/programs (World Bank 2007). Many donor agencies, however, asserted that though they had reduced their technical staff, they had hired private consultants to provide such services. However, experience had shown that managing, coordinating, and ensuring the quality of work of a large number of consultants was much more difficult than was expected. Thus, attempts by donor agencies to economize resulted in fact in a delay in aid commitment and disbursement or in a deterioration of the quality of development assistance or both.

[17] The projections of rising food prices by isolated research and academic institutions in the late 1990s were not widely known or accepted so as to influence the conventional wisdom or make a dent in the complacency of donors or the international policymaking community.

[18] Recent attempts to increase overall aid to developing countries have focused at the international level on reaching a consensus regarding the amounts of aid flow that are considered necessary to achieve the sector and subsector targets established by the Millennium Development Goals and other comparable announcements of the past few years. The goal is to mobilize specific amounts of resources for each target, rather than leaving the decisions for allocating the sectoral aid in the hands of aid agencies. This new strategy is based on "multidonor pooled funding that has clear timeline, objectives, and accountability" (Sachs 2010). The bilateral aid programs are scattered among small efforts, rather than being focused on achieving well-coordinated, specific, major targets. The examples of "pooled" donor funding include the Global Fund to Fight Aids, Tuberculosis, and Malaria. Other funds, such as aid to adapt to climate change, are also contemplated. It has been suggested that there should be more funds such as the Global Infrastructure Fund, Maternal and Child Health Initiative, and so on. In this way, once donors decide on the quantitative targets of assistance to a particular sector or purpose, the process of committing aid is placed in a new mechanism for pooling the resources of all the donors under one board or committee, which then approves projects submitted by individual countries. The disbursement of funds can be undertaken by an international or regional development finance institution (Sachs 2010).

Falling Share of Agriculture in GDP and in Total Aid

It is plausible to hypothesize that the share of agriculture in a country's GDP is an important criterion or consideration determining the allocation of aid to agriculture. In other words, over the years, the share of agriculture in GDP has declined so also the share of agriculture in aid may be expected to decline across countries and over time in individual countries.

If data on the share of agriculture in total aid for each recipient country were available, it would have been possible to test this hypothesis across countries and over time. However, in the absence of such data, an attempt is made below to examine this relationship indirectly and in a very general way, by comparing the regional distribution of the total aid to agriculture with the share of agriculture in the GDP in the different regions of the developing world.

The share of agriculture in the GDP of low-income countries over the years from the 1980s to the 2000s was higher than that in the middle-income countries (Table 7).[19] The share of Sub-Saharan Africa as well as South and Central Asia—which were predominantly low-income countries—in the agricultural aid during the period between 1990s and 2000s was much higher than that of the middle-income countries of the Far East, Middle East and North Africa, and South America (Table 8). It may be noted that, within the group of low-income countries, the share of agriculture in total aid was lower for South and Central Asia than for Africa during the period 1993–2006 (Table 9). At the same time, the share of agriculture in GDP in South Asia (excepting Nepal) was less than the average share in the low-income countries, dominated by Sub-Saharan Africa (Table 7). This corresponds with the hypothesis that a low share of agriculture in GDP was generally associated with a low share of agricultural aid.

Table 7. Share of value added in agriculture in GDP

	1980	1985	1990	1995	2002	2002–06
Low-income countries	–	38.2	36.7	34.3	30.4	28.5
Middle-income countries	20.3	19.1	17.2	13.7	11.0	12.9
Middle- and low-income countries	20.8	19.8	18.0	14.5	11.8	11.5

Source: World Bank Development Indicators 1980, 1985, 1990, 1995, 2002, 2006.

Table 8. Regional distribution of aid to agriculture (percentage)

	1980	1985	1990	1995	2002	2002–06
Sub-Saharan Africa	25.2	30.2	40.7	41.5	37.4	37.1
Asia and Central Asia	45.0	42.1	28.0	23.7	23.2	40.3
Far East	16.4	14.2	21.3	23.7	25.1	
Middle East and North Africa	9.6	4.1	5.2	7.5	3.1	6.7
South America	3.8	9.4	4.8	3.6	11.2	15.9

Sources: DFID 2004; Oxfam 2009.

[19] The World Bank defines low-income countries as those with per capita income equal or less than $975 (PPP) and middle-income countries are those with per capita income between $975 and $11305 further sub-divided into lower middle-income countries with per capita income between $975 and $3855 and upper middle-income countries with per capita income between $3856 and $11305). The low-income and middle-income countries are defined as developing countries and they are the recipients of Official Development Assistance. According to the classification of countries by World Bank (based on 2006 per capita income), South Asia, India, Pakistan, Bangladesh, Nepal, Bhutan, and Afghanistan are low-income countries and Sri Lanka and Maldives are middle-income countries (lower middle-income countries), whereas in Central Asia, out of six countries, three are low income and three are lower middle-income countries. In Sub-Saharan Africa, out of forty-seven countries, thirty-seven are low-income and sixteen are lower middle-income countries (World Bank 2007 and 2010, WDR).

Table 9. Share of agriculture in GDP

	1985	1993	2001	2006
Sri Lanka	27.7	24.6	20.1	13.4
India	31.2	20.6	14.6	12.5
Pakistan	28.5	25.1	24.1	20.4
Bangladesh	33.0	26.3	24.0	19.0
Nepal	52.0	44.9	39.4	33.7
Range of inter-country variation	(28–52)	(21–45)	(15–40)	(13.4–34)

Source: World Bank, *ibid*.

However, the difference in respect of share of agriculture in GDP between the South Asian countries (excepting Nepal), on the one hand, and the rest of the low-income countries (mainly Africa), on the other, was much less during 1980s than during 1990s. There was no information on share of agriculture GDP in the Central Asian countries as distinguished from South Asia. The share of agriculture in aid was higher for Asia and Central Asia than for Africa in this period.[20]

The share of agriculture in GDP has declined over the years in both the groups of developing countries, that is, by 27 percent in low-income countries and by 30 percent in middle-income countries between 1985 and 2002–06 (Table 7). But the rate of decline in South Asia was faster than that in the rest of the low-income countries, ranging from 60 percent in India and 50 percent in Sri Lanka, to 35 percent in Nepal, 33 percent in Bangladesh, and 28 percent in Pakistan between 1985 and 2006. Correspondingly, the share of South and Central Asia in agricultural aid steeply declined from 45 percent in 1980s and 42 percent in 1985 to 23.2 percent in 2002. However, the share of Sub-Saharan Africa in agricultural aid, on the other hand, increased from 30.2 percent to 37.1 percent (by 23 percent) during this period.

It is only to be expected that share of agriculture in GDP is not the only or even the most important consideration for the inter-country allocation of aid to agriculture. It appears, however, that on the basis of very highly aggregative data, there is some indirect evidence that the share of agriculture is possibly a consideration in the allocation of aid. It is also to be expected that the public expenditures by the developing countries on agriculture decline with a decline in the share of agriculture in the GDP and investment priorities change in favor of the nonagricultural sector for achieving both income growth and poverty alleviation. Hence, the demand for aid to agriculture on their part may also diminish. However, the regional allocation of aid is the outcome of the country-level negotiations between donors and recipients. In this sense, large countries such as in South Asia may suffer from a disadvantage in comparison with small countries, even if economic characteristics and eligibility criteria for aid are the same for both sets of countries.[21] Because of multiplicity of considerations, there is often a minimum level of aid, especially bilateral aid, below which the amount of aid to an individual recipient country is not reduced—even in a period of general stagnation in the overall aid flow. With an increasing emphasis on poverty alleviation as an objective of foreign aid, the absolute number of the rural poor as well as the intensity of poverty, that is, percentage of the rural population below the poverty line has emerged as a criterion for the inter-country allocation of aid. At the same time in many developing countries, the rural poor was mostly engaged in agriculture. The high intensity of poverty in Africa was a dominant consideration for increasing aid (including agricultural aid) to Africa starting 1990s.

[20] The provision of aid is decided by a multiplicity of considerations, both economic and non-economic. It must be noted that this regional share of aid is the outcome of discussions taken at the level of individual recipient country by the donor agencies and therefore is a weak indicator of the inter-country allocation of aid.

[21] Foreign aid is governed by multiple considerations, not only those of international economic cooperation/interdependence, including trade, investment, and technology transfer, and so on but also political and strategic nature. This paper does not deal with the subject of military assistance. It has certainly various economic consequences. It is after all an addition to the pool of external resources flowing to the recipient countries and financial resources in the ultimate analysis are fungible between different users and sectors. It absorbs large resources but it is a vast subject which could not be treated here. Moreover, the statistics on military aid that is available in the public domain is very limited.

The *2008 World Development Report* on agriculture classified the developing countries into three categories: agriculture-based economies (agriculture's share in GDP at around 30 percent), transforming economies (share of agriculture in GDP around 19 percent), and urbanized economies (share of agriculture in GDP around 7 percent). This classification is intended as a guide to indicate the mainspring for growth in developing countries. In transforming and urbanized economies, the nonfarm sector—that is, the rural nonfarm sector in the former and the urban nonfarm sector (industry and services) in the latter—is considered the dominant source of growth. Only in the first group of countries of agriculture-based economies (mainly in African countries) should there be a focus on agriculture as the primary engine of growth. Accordingly, in the group of transforming countries, which included the South Asian countries, relative emphasis should be placed on the promotion of the rural nonfarm sector to generate a larger proportion of rural income and employment. However, in a few of these countries, there are close linkages between the farm and nonfarm sectors in respect of intersectoral demand, including the flow of intermediate inputs. Hence, their investment priorities may need to take into account the indirect growth-stimulating role of the agricultural sector on rural income.

6. BROADER MEASURES OF AID TO AGRICULTURE

The agricultural sector is increasingly being incorporated in the wider concept of food security and therefore aid to agriculture is considered in the framework of investment programs and policies needed to achieve food security. For example, the investment proposals following the various G8, G20, and other international donor conferences in the aftermath of the 2007 world food crisis included elements that were outside the agricultural sector as defined earlier and in the traditional analysis by OECD, FAO, and other related food and agricultural institutions.

How and to what extent investment in agriculture is now considered in the context of investments in the interrelated sectors is exemplified by the statement of the G8 Expert Group on Global Food Security, following the post-2007 food crisis. This statement on food security includes commitment to adopt mid- to long-term measures to stimulate food production and increase investment in agriculture. The components of this commitments are to (1) explore options of a coordinated approach on stock management, including the pros and cons of building a "virtual" intentionally coordinated reserve system for humanitarian purposes; (2) reverse the decline in aid and investment in the agricultural sector; (3) promote agricultural research and development and the training of a new generation of developing-country scientists and experts; (4) support infrastructure improvements, including irrigation, transportation, rural roads and markets, supply chain, storage and distribution systems, and quality control; (5) assist in developing a food security early warning system through the improvement of national statistical systems and so forth; (6) encourage the efforts of international financial institutions in replenishing funds; (7) support country-level development strategies in adapting to climate change, combating desertification, and promoting conservation and sustainable use of biological diversity, while intensifying efforts to address climate change; (8) ensure the compatibility of policies for the sustainable production and use of biofuels with food security and accelerate development and commercialization of sustainable second-generation biofuels from nonfood plant materials and inedible biomass; (9) promote food governance in developing countries, with particular emphasis on their food security and market policies; and (10) mainstream the food security objectives in the development policies of donors and recipients countries. The following elements and components in the commitments are far outside the confines of the conventional definition of *aid to agriculture*: (1) international reserve stock management; (2) roads and transport; (3) adaptation to climate change; (4) combating desertification; (5) conservation of biological diversity; (6) sustainable production and use of biofuels, including second-generation biofuels; and (7) promotion of good governance, which includes such items as investment in legal systems development, human resource development, and economic and social infrastructure.

The Global Agricultural and Food Security Program, administered by the World Bank with financial contributions from other donors (multilateral and bilateral), lays the groundwork of the investment program based on the above-mentioned G8 commitment. The program's objective is stated to scale up support to help poor countries to (a) alleviate poverty, (b) improve rural livelihoods, and (c) improve food security.[22] The five components of the program are as follows:

1. raising agricultural productivity;
2. linking farmers to markets, including upgrading and improving management of rural infrastructure;
3. reducing risk and vulnerability, which includes, among other things, strengthening food-related social protection (transfer programs, insurance schemes, and institutional capacity

[22] The USAID administrator's announcement about the designation of 20 focus countries in fulfillment of the U.S. initiative stressed that "Feed the Future targets the causes of poverty, hunger, and undernutrition." These 20 focus countries "demonstrate potential for rapid and sustainable agriculture-led growth, good governance, and opportunities for regional cooperation through trade and other mechanism," signifying "U.S. commitment to scale up nutritional interventions . . . Feed the Future will build upon strong existing foundations to make improvements in *global health, poverty reduction,* and the *overall development*." Addressing undernutrition is key to both the President's Global Health Initiative (GHI) and Feed the Future (USAID 2010).

strengthening); improving nutrition of vulnerable groups (women empowerment program) and providing essential vitamins and minerals;

4. improving nonfarm rural livelihoods by improving the rural investment climate, expanding the rural infrastructure, and promoting nonfarm rural entrepreneurship; and
5. providing technical assistance, institutional building, and capacity development (World Bank 2009).

The report of the UK Parliamentary Committee on the United Kingdom's Aid Programme for food security and hunger emphasizes the following:

1. investment in population growth control;
2. adaptation and mitigation efforts to deal with the fallout effects of climate change on agriculture;
3. economizing the use of energy and water in view of the projected limitation on their supplies and on the limited prospects of an increased supply of essential fertilizers, such as phosphate;
4. universal access to pure drinking water;
5. agriculture that focuses on research, extension, and education based on high-quality, trained personnel (the current emphasis on primary education neglects the importance of trained personnel in the various sectors and aspects of agriculture);
6. addressing health issues (HIV/AIDS in Africa results in a loss of farmworkers as well as of high-level personnel); and
7. strengthening the role of women in agriculture, including orienting extension and research services toward women farmers (Birch et al. 2010).

This list clearly illustrates the much broader approach toward the role of investment in agriculture than had been the case in the international development community.[23] The ongoing measurements of aid to and domestic investment in agriculture do not encompass these newer, additional investments, which affect, assist, and complement the food and agriculture sector. Therefore, in light of the above, the currently conventional framework used by international and UN agencies, such as OECD, FAO, the World Bank, and the International Monetary Fund (IMF), for measuring and monitoring both external and internal investment in agriculture in developing countries may have to redesigned to include items and components so far ignored so as to define investment in agriculture in the wider context of food security, if it is to be relevant and useful.

Recently, the OECD/DAC, possibly in recognition of the wider aspects of food security, added a few supplementary items to its original definition of *agriculture*. The new category, called Food Security–Related Subsectors, includes rural development, development food aid, and emergency food aid.[24] A recent paper by the OECD secretariat provides an estimate for these three food security–related subsectors. For the average of two years (2006–2007), the annual volume of aid in constant 2007 prices for these three subitems was about $5.8 billion, which was not much below the amount of aid for agriculture alone, which was $6.2 billion (OECD 2008, 2010) (Table 10). If all four components of aid

[23] The OECD's definition of agriculture, which is widely quoted and used as the basis of analysis, debate, and discussion by national and international policy analysts and policymakers, does not refer to many items covered in the above G8 statement or World Bank's Global Agricultural and Food Security Programme such as the majority of the items in the UK program, such as population growth, climate change (adaptation and mitigation effects), access to drinking water, and health (including HIV/AIDS), are not included in agriculture as currently defined. All the above approaches emphasize how quite a few components of social infrastructure and services, as defined in the OECD and other sectoral classifications of aid, are included in the agriculture and food security program.

[24] The readily accessible OECD database does not provide the breakdown into these sub-items; these data can only be accessed by scrutinizing the detailed itemized descriptions of aid from each individual donor country and institution, as provided in the original submission by donors to the CRS database. Accordingly, there is no easy way to test the share of these additional components of agriculture and food security in the total aid flow. Development food aid is alternatively called Food Aid/Food Security.

for food security were considered together, the amount would almost double the amount of agriculture alone (Table 11).

It is interesting to observe that until 1999, FAO distinguished between two estimates of aid to agriculture in its publications—narrow and broad. The broad estimates included not only what was conventionally included in agriculture (land and water, research, training and extension, inputs, agricultural services, crop production, livestock, fisheries, forestry, and livestock) but also the following items: agroindustries, manufacture of inputs, rural development and infrastructure, and regional and river development. These additional items make up about 68 percent of the amount meant for agriculture as narrowly defined in 1998 (FAO 2001). The "broad" definition also includes some items that are included in the OECD's "Industry" classification. In addition, rural development, which is included in the OECD's "Food Security–Related Subsectors," is also a component of the FAO's broad definition of agriculture.

In 2008, aid to agriculture, forestry, and fisheries was $7.8 billion (in current prices). The G8 and other partners agreed to mobilize $22 billion for three years to promote agricultural development and food security (L'Aquila Declaration). This works out at about $7 billion a year; the current flow of aid to agriculture in 2008 (as conventionally defined by OECD) is slightly above what is postulated in the commitment. On the other hand, if the G8 commitment of $7 billion a year is meant to be in addition to the existing flow of aid, the newly required amount of aid flow would be $14.8 billion instead of $7.8.[25] This target can be achieved by increasing the total aid to all sectors by about $7.8 billion so that the amount of total aid would have to be about $159 billion as against $151 billion in 2008. However, a doubling of the aid to agriculture (as conventionally defined by OECD), keeping constant the absolute amount of aid to the rest of the economy, would involve a decline in the share of the rest of the economy in overall aid. If, on the other hand, the share of the rest of the economy were to remain unchanged, then the amount of aggregate aid must increase even further.

[25] The annual amount of $5.8 billion recently provided as aid for three food security purposes was less than the $7.0 billion (by about $1.2 billion) that the G8 committed to as additional annual aid for agriculture and food security over the next three years (World Bank, *ibid*.). Thus, if the World Bank definition of the G8 commitment is accepted, then the current flow of aid to Food Security–Related Sectors, as defined by the OECD, is close to the amount of aid proposed as additional aid by the G8. Thus, it seems that no increase is necessary to meet the G8 commitment of aid for agriculture and food security.

Table 10. Aid to agriculture- and food security-related sectors

	Annual average commitments in million$ (in constant price of 2007)											
	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08	
	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
(1) Agriculture and forestry	4,614	40.1	5,061	49.7	5,054	45,7	5,349	49.4	6,168	51.8	7,234	58.9
(2) Rural development	1,697	14.7	875	8.6	1,254	11.4	945	8.7	1,473	12.4	1,000	8.1
(3) Development food aid	3,045	26.6	2,181	21.4	2,388	21.6	2,212	20.4	2,073	17.4	1,597	13.0
(4) Emergency food aid	2,154	18.7	2,076	20.4	2,337	21.2	2,311	21.4	2,204	18.5	2,441	19.9
TOTAL	11,510	100.0	10,193	100.0	11,033	100.0	10,817	100.0	11,918	100.0	12,272	100.0
Combined total amounts of items 2, 3 & 4 as a percentage of item 1		149.46		101.40		118.30		102.22		93.22		69.64

Source: OECD/DAC 2009, 2010.

Table 11. Aid to agriculture and rural development (billions of 1995 US$)

	1980-1982	1983-1985	1985-1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1998 (current US$)
Commitments for agriculture (narrow definition[1])	12.3	14.1	14.8	13.5	11.1	10.0	10.6	8.6	10.3	7.2	9.3	9.3	8.3	7.2
Commitments for agriculture (other components)	6.0	5.4	4.4	4.1	3.8	3.6	3.1	2.9	3.0	4.3	2.9	4.4	5.6	5.0
Total commitments for agriculture (broad definition[2])	18.3	19.5	19.2	17.6	14.9	13.6	13.7	11.5	13.3	11.5	12.2	13.7	14.0	12.3
Commitments for other components as a percentage of narrow definition of agriculture	48.8	38.3	29.7	30.4	34.7	36.4	29.3	34.1	29.3	59.0	30.7	46.9	67.7	67.7

Source: FAO 1999, 2001.

[1] Narrow definition includes the following sectors: Land and water; research, training and extension; inputs; agricultural services; crop production; livestock; fisheries; forestry; other agriculture.

[2] Broad definition includes all the above plus manufacturing of inputs; environment protection, agroindustries; rural development/infrastructure; regional and river development.

7. CONCLUSIONS

The statistics of official development assistance, both total aid and its sectoral distribution as currently provided by OECD/DAC/CRS can be considered "work in progress" as illustrated by a few examples below. There is a room for improvement and expansion in the current statistics on aid to agriculture. This is partly related to the sectoral classification of total aid in respect of the coverage, content, and the definition of various sectors. For one thing, a certain proportion of total aid, ranging from 23 to 36 percent in different years, is not allocable between different sectors and hence it is not known how much of this relates to agriculture. How to resolve this problem needs some thought. One way of presenting the sectoral distribution of aid data would be to classify the data into various sectors after excluding the "unallocable sectors" from the amount of total aid.

Secondly, there are three sectors in the classification of total aid, that is, administrative costs of donors, expenditure on refugees in donor countries and support to NGO, presumably the developed countries NGOs, which do not in fact constitute a transfer of resources to the recipient countries. Accordingly, it can be argued that they should not be included in the measurement of the flow of aid to developing countries.

In order to obtain a better understanding and measurement of the aid flow to agriculture, it is necessary to examine how much of the investment in the related sectors such as economic and social infrastructure is undertaken in the rural areas, meaning rural roads, storage and transport, rural electrification, rural health and sanitation facilities, and so on This information is not currently available. Similar is the case with aid to agro-industry, including the processing of agricultural outputs and the production of agricultural inputs (fertilizers and agricultural equipment, and so on). These activities are essential ingredients for agricultural production.

The sector of rural development which is, however, not included in the agricultural sector as defined by OECD/DAC/CRS but is presented as a separate sector/subsector, does not include any of the above activities; it provides information on a wide variety of disparate items ranging from national reserve management, land management, land use planning, land settlement and resettlement activities to regional development planning, geographical information system, and a few very ambiguous items as functional integration of rural and urban areas.

While the composition of OECD/DAC/CRS aid statistics is admittedly based on the data supplied by the donors, both bilateral and multilateral, the statistics of aid to agriculture that is frequently used by bilateral donors and some international financial institutions, does not always conform with and often includes items not included in the OECD/DAC/CRS definition of aid to agriculture. This may partly be due to the widening of the definition of aid to agriculture in recent years to include diverse components of agriculture and food security which extend beyond the production and availability of food to the stability of and universal access to food supplies linked to the increase in the "entitlements" or income of the poor. At the same time there is a tendency on the part of some donors to pick and choose items from this wider net for the measurement of their own aid to agriculture. Thus, there is a need for the OECD/DAC as well as the non-OECD donor agencies to indicate the differences in their respective definitions of aid to agriculture and food security in order to facilitate the comparability and consistency of measurement of aid.

To go one step further, one may suggest that it is desirable that the international development community, including all the donors—bilateral and multilateral—as well as the UN agencies, agree on what is to be included in the definition of agriculture and food security and to use it consistently in their measurement and analysis of aid. This would also help improve the analysis of the impact or the success of aid in achieving its objectives, including the promotion of agriculture and food security in the recipient countries.

There is yet another aspect of the sectoral classification of total aid as recorded by the individual donors or by OECD/DAC/CRS in their aid statistics. The aid statistics including their sectoral classification as recorded by the recipient countries frequently does not conform with the donors' or OECD/DAC/CRS definitions. To make matters more complex, the sectoral classification of public expenditures in the developing countries does not conform with the sectoral classification of aid by the OECD/DAC/CRS or the individual donors. The aid flow in the recipient countries is incorporated in their public expenditure accounts and, therefore, their sectoral classification follows that of their public expenditures.

The sectoral classification of public expenditures in the member countries is recorded by the IMF in its International Financial Statistics. Firstly, this is different from the sectoral classification of aid that is used by the OECD/DAC/CRS and/or by the different donor agencies. Secondly, it differs from the way in which the individual countries classify their own public expenditure accounts. Moreover, the sectoral classification of public expenditures varies as between the different countries. Therefore, it is very difficult to analyze on a comparable basis the role of aid in financing the public expenditures in the different sectors of individual countries.

It is apparent from the above that it is important that efforts are made to improve the consistency and comparability of economic/sectoral classifications of public expenditures as well as of aid in developing countries. After all this should be ideally a matter for concern or attention on the part of both the bilateral and multilateral donors as well as the recipient countries. For example, if a donor agency wishes to undertake an analysis of the impact of its aid in the different sectors of a recipient country, it is necessary to have a consistent and comparable sectoral classification of statistics on aid as well as on public expenditures.

Occasionally, the donor agencies undertake the evaluation of the effectiveness of aid as well as of public expenditures in a particular sector such as agriculture or some subsector of agriculture such as irrigation or credit or agricultural extension and training. That is the only occasion that a rigorous and a comparable classification of the components of public expenditures and aid the sector or the subsector is undertaken. But then this analysis is done most often in respect of aid from a particular donor agency interested in the evaluation of its own assistance. It does not include the aid from other donors. In fact, most frequently the analysis of aid effectiveness is confined to an individual project and not its overall assistance to a recipient country.

While the desired improvement, as outlined above, in the quality, content, and classification of aid statistics, including in particular the aid to agriculture and food security, is undertaken, a few conclusions on the flow of aid to agriculture and its implications can be drawn on the basis of the currently available information.

Starting in the late 1980s, the absolute amount of aid to agriculture in real terms declined over the years, as did the share of agricultural in the total aid. The decline in agricultural aid may be considered in the context of the trend in the total aid flow. The total aid, having increased from 1973–1975 to the end of the 1980s, declined until the early 2000s, when it again started to increase in 2007. All this took place in the context of an increasing number of recipient countries, as well as a rising number of purposes and objectives for which aid is provided. In a sense, the 1990s was a "lost decade" for overall development assistance—this was also the period when the developing countries were undertaking major structural reforms and were enhancing their capacity to allocate and use aid resources more efficiently.

There were multiple reasons for the decline in the share of aid to agriculture in total aid from the mid-1980s to early 2000s. It is difficult to assign relative weights or importance to different reasons. How does one judge the appropriate size of total aid for agriculture to be provided globally by all donors to all recipient countries taken together? And, given the size of the total aid to be provided by all the donors, what should be the share of aid to agriculture? These are difficult questions to answer.

In the post-2007 world food crisis period, donors have committed themselves to quantitative targets for increased aid to agriculture and food security. In the absence of any evidence to the contrary, one assumes that this was done on the basis of ad hoc judgments about what was feasible on the part of donors and some general idea about the requirements of aid in the developing world. However, several

attempts were made by research institutions and individual scholars, as well as by international agencies such as the FAO (for example, during the 1996 World Food Summit, as well as in the aftermath of the 2007 food crisis), to estimate total investments in the agriculture in developing countries that were required to achieve the desired rates of growth in agricultural production and income.[26] In addition, estimates were made for the domestic resources that could or need to be mobilized by developing countries to meet their investment requirements. Further refinements were be made to estimate the required public-sector investment in agriculture and the resources that could be mobilized by the public sector from domestic sources. The gap between the two was assumed to be filled by external aid, which was to be provided to the developing countries on a government-to-government basis. These estimates were as good as the assumptions made about many parameters involved in such estimates. Moreover, the underlying data for making these estimates were inadequate—in some cases woefully so; therefore, the estimates were likely to have very wide margins of error.

In the ultimate analysis, the commitment of aid flow to agriculture is decided at the country level by a process of interaction between donors and recipient countries.[27] The commitment of aid at the global level is a sum of aid committed by each donor to each recipient. It is frequently suggested that decline in the amount of aid to agriculture or its share in total aid is in fact a reflection of the lower priority attached to agriculture by the recipient countries to which the donors have merely responded. It is too simplistic to assume such a passive role on the part of donors.

However, donors have an overall framework of reference for their global development assistance program and priorities that serves as a guide to their country-level aid programs and priorities. In recent years, this framework has been provided by the consensus reached by the international development community (as discussed earlier) regarding the objectives and sectoral priorities of aid. At the same time, the recipient countries have also been part of the process through which the deliberations among the members of the international development community, including think tanks and experts, have evolved towards a broad consensus regarding investment priorities. In addition, each donor country has a variety of interest groups that influence the country's aid programs, depending on their relative success in canvassing and lobbying for their particular sectors, interests, or causes. These interest groups range from political parties to various civil society groups and "think tanks." At the bureaucratic level, various ministers and bureaucrats in the donor country have their particular causes and programs to sponsor in the course of their decisionmaking process.[28]

Given this general framework, the preferences of different donors in each country vary. This is true even though there have been attempts at coordination among donors not only internationally but also at the country level—not always with significant success. This coordination has also involved joint discussions and deliberations among and between donors and government representatives regarding their mutual concerns and priorities. The donor's offer of aid in response to the recipient country's

[26] These estimates are based on capital and current expenditures on the generation and dissemination of technology, supply of inputs, irrigation, land improvement, marketing and distribution networks, and so on required for attaining the target rates of growth in agricultural production. A number of estimates also include investments required to increase the output of sectors covered in the broad definition of agriculture described earlier. However, none of the estimates include investments in the food security-related sectors.

[27] In some instances, an individual donor agency, bilateral or multilateral, makes tentative estimates of the amount of aid, it expects to provide to a recipient country in the next year or a couples of years. The estimates are made on the basis of assumptions regarding a recipient country's requirements and the donor's available resources. The amount of aid that is eventually committed depends on the subsequent discussions and negotiations between a donor agency and a recipient country.

[28] In a recent exercise by the DFID (UK) to determine the priorities of aid programs in light of the current economic recession necessitated by budget cuts, a number of considerations were taken into account when classifying their aid programs: (a) those with strong public backing, for which any cut would will be resisted; (b) those with strong interest of other government departments; (c) ministerial priorities and initiatives; and (d) priorities of the UK's partners and stakeholders in the international aid community, such as countries like the United States or private philanthropic foundations like the Bill and Melinda Gates Foundation. A detailed list of the different types of considerations that were tentatively taken into account as a basis for final decisionmaking is given in Appendix Table A.4.

requirements or requests for assistance is discussed in course of these deliberations. Whatever is the forum or platform for discussions and deliberations, the final outcome is the result of negotiations and discussions between donors and a recipient country. In this negotiation process, it is only to be expected that donors have an edge. In many low-income recipient countries, the domestic institutions and human capacity efficient and adequate enough to formulate investment programs and aid priorities and to negotiate is limited.

In most countries, whatever data are available seem to confirm, that disbursements often fall short of commitments and in some years by a significant commitment. Frequently, only a percentage of the "pipeline" of already committed and accumulated aid is disbursed every year. The amount so disbursed depends on the capacity of absorption or utilization of aid in the recipient country. The gap between commitment and disbursement, on the one hand, and disbursement and actual implementation of aided projects and programs, on the other, determines not only the pace of aid commitment but also the amount of aid that is committed. Moreover, the speed with which aid is committed, however, depends in part on the institutional procedures and processes in the donor agencies; however, it also depends to a large extent on the administrative rules and procedures for award of contracts, procurements, and budgetary expenditures in the recipient countries. The process of commitment as well as of disbursement of aid is thus time consuming, especially for the administratively weak recipient governments.

Many of the questions raised above can only be answered by a more detailed investigation of the decisionmaking process by both donors and recipients at the country level about the size and composition of foreign aid. There is an ongoing debate as to the role of the donors' regulations and conditions about the disbursement of aid, on the one hand, and, on the other, the capacity of the recipient governments to disburse and implement aided projects and programs. A large pipeline of undisbursed or unutilized aid discourages and delays or reduces the commitment of new aid. There is an incentive on the part of the donor agencies to shift aid to countries able to disburse and implement aid programs at a faster rate. However, on the other hand, this consideration is set against the increasing emphasis by the international donor community for attaching high priority in aid allocation to the countries with low capita income or countries with a large absolute number of the poor or very high intensity of poverty. At the same time, these are the very countries which are more likely than others to have limited institutional and human capacity for aid disbursement and implementation, especially when development projects seeking aid are required to incorporate diverse elements such as environmental protection, participation of beneficiaries, especially of women, favorable impact on the poor, including the marginalized populations and regions, and so on

The above-mentioned considerations are especially relevant in the field of agricultural investment. For example, in such areas as research, extension, training and education, the capacity to rapidly absorb a large amount of aid is limited by the lack of appropriate institutions and human capital. It is difficult to increase the supply of research and extension personnel at a fast rate. A significant time gap is involved in training and then in allowing them to gain experience. It is now widely recognized that the planning, programming, and implementation of projects widely spread out throughout the rural areas of a country—such as extension, training, and irrigation (for example, the construction, maintenance, and water allocation of irrigation projects as well as supervision of extension personnel)—not to mention the variety of economic infrastructures—all requires a decentralized local government and a system of appropriate incentives.

It is a difficult and challenging task to build-up a system of effective, local governments, because they involve political, sociological, and cultural aspects peculiar to the rural societies of each country. These problems are not amenable to easy solutions.[29] This is why the donors are increasingly providing assistance to build institutions and human capacity in the recipient governments at both national and sub-

[29] The similar problems as above are likely to be felt in the social sectors projects, such as health and education, as they are implemented to an increasing extent in the rural areas. The problems of formulation and implementation of development projects in large scale, urban-oriented physical infrastructure sector such as highways, bridges, ports, airports, railings, and so on are less intractable. It is less difficult to monitor and supervise the implementation of such projects. In other words, the problems of governance are less severe.

national levels so that the latter can design, experiment, and select projects and programs to suit the local circumstances.

To conclude, the task of measuring, analyzing, and evaluating aid to agriculture in all its components, ramifications and implications remains a challenging task for researchers, policy analysts, and policymakers. Moreover, in order to analyze and evaluate the role of aid in promoting agricultural development and food security, it is necessary to examine foreign aid not only in the context of relevant public expenditures on these sectors as well as in a broader framework of overall development strategy.

APPENDIX: SUPPLEMENTARY TABLES

Table A.1. Percentage distribution of total OEDC/DAC-defined agricultural aid (2005–2008)

	Sub-Saharan Africa	South and Central Asia	Far East Asia	All Regions
Agricultural policy and administrative management	29%	15%	17%	5%
Agricultural development	12%	11%	16%	14%
Agricultural land resources	3%	3%	3%	–47%
Agricultural water resources	9%	36%	27%	34%
Agricultural inputs	2%	1%	3%	–39%
Food crop production	10%	3%	4%	40%
Industrial crops/export crops	4%	1%	1%	188%
Livestock	3%	3%	2%	11%
Agrarian reform	1%	0%	6%	169%
Agricultural alternative development	0%	14%	0%	720%
Agricultural extension	8%	7%	5%	141%
Agricultural education/training	2%	0%	1%	49%
Agricultural research	7%	1%	10%	130%
Agricultural services	5%	3%	1%	67%
Plant/post-harvest protection and pest control	1%	0%	0%	–35%
Agricultural financial services	2%	2%	1%	–45%
Agricultural cooperatives	1%	0%	0%	22%
Livestock/veterinary services	1%	0%	2%	87%

Source: Coppard 2009.

Table A.2. Sectoral distribution of total aid (in current US$ millions)

	1995-96	1997-99	2000-02	2003-05	2006-08
I. SOCIAL INFRASTRUCTURE & SERVICES	**26,748**	**45,205**	**61,446**	**113,737**	**168,013**
I.1. Education	5,545	10,966	13,241	23,882	32,822
I.2. Health	4,365	7,242	8,653	15,648	23,854
I.3. Population Pol./Program & Reproductive Health	1,783	3,653	5,844	12,462	25,525
I.4. Water Supply & Sanitation	7,349	9,021	9,257	14,413	20,669
I.5. Government & Civil Society	5,541	8,724	14,762	33,713	48,336
I.6. Other Social Infrastructure & Services	2,165	5,599	9,689	13,620	16,807
II. ECONOMIC INFRASTRUCTURE & SERVICES	**27,148**	**33,852**	**32,099**	**44,276**	**64,917**
II.1. Transport & Storage	12,586	17,437	15,054	18,458	29,667
II.2. Communications	1,404	1,269	1,167	1,851	1,488
II.3. Energy	10,377	10,257	8,534	15,062	19,539
II.4. Banking & Financial Services	1,236	1,990	3,478	4,669	7,973
II.5. Business & Other Services	1,545	2,898	3,865	4,236	6,250
III. PRODUCTION SECTORS	**11,994**	**15,534**	**15,706**	**22,424**	**29,453**
III.1. Agriculture, Forestry, Fishing	9,598	11,398	10,430	13,284	19,535
III.1.a. Agriculture	7,790	9,388	8,452	11,012	16,723
III.1.b. Forestry	1,055	1,245	1,214	1,544	1,845
III.1.c. Fishing	752	764	764	728	968
III.2. Industry, Mining, Construction	2,100	3,502	3,862	6,832	6,049
III.3.a. Trade Policies & Regulations	172	462	1,312	1,999	3,274
III.3.b. Tourism	123	172	102	308	594
IV. MULTISECTOR / CROSS-CUTTING	**8,952**	**13,554**	**13,957**	**19,594**	**28,094**
IV.1. General Environment Protection	3,600	3,716	4,128	4,800	8,132
IV.2. Other Multisector	5,352	9,837	9,830	14,794	19,962
V. TOTAL SECTOR ALLOCABLE (I + II + III + IV)	**74,843**	**108,145**	**123,208**	**200,030**	**290,477**
VI. COMMODITY AID / GENERAL PROGRAM ASSISTANCE	**9,185**	**12,744**	**14,292**	**15,883**	**21,648**
IV.1. General Budget Support	6,463	7,518	8,080	10,808	15,595
IV.2. Development Food Aid/Food Security Assistance	1,613	3,956	5,588	4,396	4,493
IV.3. Other Commodity Assistance	1,109	1,270	623	680	1,561
VII. ACTION RELATING TO DEBT	**5,873**	**9,528**	**14,516**	**51,174**	**42,003**
VIII. HUMANITARIAN AID	**4,776**	**12,022**	**10,772**	**24,810**	**27,519**
VIII.1. Emergency Response	4,297	11,188	9,568	20,127	23,524
VIII.2. Reconstruction Relief & Rehabilitation	480	834	1,205	4,658	3,314
VIII.3. Disaster Prevention & Preparedness	–	–	–	24	680

Table A.2. Continued

	1995-96	1997-99	2000-02	2003-05	2006-08
IX. ADMINISTRATIVE COSTS OF DONORS	**145**	**1,268**	**4,123**	**7,546**	**15,594**
X. SUPPORT TO NGO'S	**609**	**949**	**4,189**	**2,383**	**5,286**
XI. REFUGEES IN DONOR COUNTRIES	**443**	**581**	**2,064**	**4,684**	**6,298**
XII. UNALLOCATED / UNSPECIFIED	**1,622**	**3,734**	**3,170**	**4,202**	**4,484**
TOTAL (V + VI + VII + VIII + IX + X + XI + XII)	**97,496**	**148,972**	**176,335**	**310,711**	**413,309**

Sources: OECD-DAC/CRS, various years.

Table A.3. Sectoral distribution of bilateral aid (in current US$ millions)

	1970-72	1973-75	1976-78	1979-81	1982-84	1985-87	1988-90	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08
I. SOCIAL INFRASTRUCTURE & SERVICES	**5,481**	**7,059**	**9,396**	**16,559**	**18,771**	**23,456**	**33,870**	**36,346**	**45,156**	**39,701**	**45,362**	**79,669**	**116,691**
I.1. Education	4,031	3,690	4,978	8,651	8,512	9,912	14,458	14,439	16,693	14,214	11,679	18,022	25,821
I.2. Health	124	1,258	2,138	3,707	3,770	4,172	4,903	4,697	6,286	5,235	5,846	9,645	13,813
I.3. Population Pol. / Program & Reproductive Health	–	–	–	–	55	826	1,490	1,343	2,121	2,184	3,911	7,493	17,305
I.4. Water Supply & Sanitation	372	626	658	1,278	2,091	3,043	5,219	6,722	8,907	7,171	6,178	9,964	14,189
I.5. Government & Civil Society	273	675	488	910	1,501	2,430	3,419	4,405	4,714	5,074	9,191	24,716	33,624
I.6. Other Social Infrastructure & Services	681	810	1,134	2,013	2,843	3,073	4,382	4,739	6,436	5,822	8,558	9,829	11,939
II. ECONOMIC INFRASTRUCTURE AND SERVICES	**1,792**	**3,795**	**6,893**	**12,099**	**13,811**	**17,660**	**26,466**	**29,813**	**35,198**	**25,994**	**20,164**	**29,697**	**42,949**
II.1. Transport & Storage	799	1,145	2,226	5,754	5,086	6,621	10,646	12,000	16,202	11,693	10,473	10,719	17,531
II.2. Communications	312	1,083	693	1,274	2,200	2,274	4,417	3,851	2,506	1,405	883	1,601	1,073
II.3. Energy	681	1,459	3,552	4,991	6,115	7,166	8,773	11,602	12,884	8,934	5,178	12,278	13,356
II.4. Banking & Financial Services	–	–	–	–	317	983	467	1,273	1,097	971	1,166	2,468	6,528
II.5. Business & Other Services	–	108	422	80	92	617	2,163	1,086	2,509	2,989	2,463	2,631	4,461
III. PRODUCTION SECTORS	**1,901**	**7,018**	**10,211**	**17,982**	**16,156**	**17,138**	**21,859**	**20,050**	**17,503**	**12,251**	**10,234**	**13,600**	**18,068**
III.1. Agriculture, Forestry, Fishing	801	2,539	4,588	8,399	8,253	11,058	13,270	11,925	12,487	8,994	7,463	7,997	12,137
III.1.a. Agriculture	–	–	–	–	–	–	–	–	5,497	6,544	5,663	6,107	9,917
III.1.b. Forestry	–	–	–	–	–	–	–	–	700	966	874	1,333	1,480
III.1.c. Fishing	–	–	–	–	–	–	–	–	456	552	603	557	739
III.2. Industry, Mining, Construction	1,100	2,212	2,601	4,112	3,875	5,237	6,835	6,352	2,713	2,773	1,850	4,417	3,639
IV. MULTISECTOR / CROSS-CUTTING	**122**	**752**	**1,162**	**1,508**	**3,380**	**1,840**	**4,139**	**5,610**	**7,409**	**9,648**	**10,224**	**16,576**	**19,293**
IV.1. General Environment Protection	–	–	–	–	–	–	–	–	1,984	2,665	3,729	3,816	6,458
IV.2. Other Multisector	–	–	–	–	–	–	–	–	2,131	6,570	6,496	12,734	12,835
V. TOTAL SECTOR ALLOCABLE (I + II + III + IV)	**9,296**	**18,623**	**27,661**	**48,148**	**52,118**	**60,094**	**86,334**	**91,819**	**105,265**	**87,691**	**85,984**	**139,542**	**197,000**
VI. COMMODITY AID / GENERAL PROGRAM ASSISTANCE	**5,801**	**5,086**	**6,964**	**7,951**	**8,997**	**19,539**	**23,765**	**24,471**	**9,681**	**8,756**	**8,580**	**8,541**	**12,791**
VI.1. General Budget Support	–	–	–	–	–	364	2,489	3,387	2,241	1,445	800	2,229	8,806
VI.2. Development Food Aid/Food Security Assistance	4,055	3,397	4,259	3,710	3,695	6,609	6,046	4,977	3,265	3,350	3,840	3,186	3,576
VI.3. Other Commodity Assistance	–	–	–	–	–	–	–	–	1,548	2,647	3,949	3,126	408
VII. ACTION RELATING TO DEBT	**1,317**	**947**	**2,097**	**2,736**	**1,047**	**2,188**	**15,877**	**16,034**	**12,544**	**11,016**	**14,109**	**50,041**	**42,818**

Table A.3. Continued

	1970-72	1973-75	1976-78	1979-81	1982-84	1985-87	1988-90	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08
VIII. HUMANITARIAN AID	**206**	**354**	**364**	**1,096**	**1,115**	**1,714**	**2,679**	**7,957**	**5,914**	**8,287**	**6,970**	**17,789**	**22,924**
VIII.1. Emergency Response	–	–	–	–	–	–	–	–	2,306	6,488	5,167	12,545	20,512
VIII.2. Reconstruction Relief & Rehabilitation	–	–	–	–	–	–	–	–	–	–	–	1,471	1,930
VIII.3. Disaster Prevention & Preparedness	–	–	–	–	–	–	–	–	–	–	–	8	483
IX. ADMINISTRATIVE COSTS OF DONORS	**–**	**–**	**–**	**–**	**920**	**3,614**	**5,254**	**5,007**	**7,363**	**7,821**	**8,440**	**11,341**	**14,705**
X. SUPPORT TO NGO'S	**–**	**–**	**–**	**–**	**1,066**	**2,092**	**1,932**	**2,160**	**1,403**	**2,250**	**5,465**	**4,724**	**7,554**
XI. REFUGEES IN DONOR COUNTRIES	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**794**	**1,755**	**1,805**	**3,395**	**5,452**	**6,304**
XII. UNALLOCATED / UNSPECIFIED	**3,930**	**9,054**	**11,358**	**9,385**	**7,293**	**3,412**	**6,261**	**8,630**	**9,953**	**5,695**	**4,943**	**4,795**	**5,273**
TOTAL (V + VI + VII + VIII + IX + X + XI + XII)	**20,550**	**34,063**	**48,444**	**69,316**	**72,556**	**92,653**	**142,101**	**156,871**	**153,879**	**133,319**	**137,887**	**242,225**	**309,369**

Sources: OECD-DAC/CRS, various years.

Table A.4. DFID commitments, June 2010[30]

Strong public backing:

- Continue to spend half of future direct support for developing countries on public services.
- Allocate at least 50 percent of all new bilateral aid to fragile and conflict-affected countries.
- Double support to global education, reaching £1 billion by 2010 as part of a commitment to spend at least £8.5 billion by 2015.
- Spend £6 billion on health services and systems by 2015.
- Quadruple support to fair and ethical trade.
- Support fair and ethical trade through public procurement.
- Support 50 million poor people through social assistance and related measures.
- Double our central support to civil society organizations to £300 million by 2013.
- Sustain increased support to water and sanitation to provide a total of £1 billion to Africa over five years.
- Expand support for southern civil society organizations to campaign for action on climate change and to deliver change on the ground.
- Work with international partners to ensure that at least US$10 billion is provided annually for infrastructure in Africa by 2010 through the Africa Infrastructure Consortium.
- In 2008, the United Kingdom committed £100 million over five years to the Global Polio Eradication Initiative.
- Invest £220 million in health research over the next five years.
- Expand support for economic opportunities in fragile and postconflict countries.
- Support 8 million children in school in Africa by 2010.
- Help 25 million people gain access to water and sanitation in Africa over the next 5 years and 30 million people in South Asia by 2011.
- Concentrate our resources on poor countries in Sub-Saharan Africa and in South Asia.
- Work more in those fragile states that receive less aid overall in relation to the number of poor people they have and which are most off track on the MDGs.
- Work in those middle-income countries that have the largest numbers of poor people and the greatest regional and global influence on development; maintain links with other middle-income countries (including through the EU) in order to help them avoid slipping back to low-income status.
- Encourage civil society and other organizations to monitor international donor performance in developing countries.
- Expand opportunities for young people and Diaspora communities to volunteer in developing countries.

Strong backing by other government departments:

- Provide £1 billion per year to support growth and trade.
- Help countries plan and implement new climate-resilient development strategies through the Plot Program for Climate Resilience.
- Deliver on our commitments to invest in clean technology and renewable energy in developing countries through the Environmental Trust Fund.
- Pilot climate change innovation centers and seed funding for clean technology.
- Invest in research into climate science for better predictions of local impacts on poorer countries (partnership with the Hadley Centre).
- Produce a UK conflict strategy in 2009 to guide how we tackle conflict globally.
- By June 2010, develop joint government strategies in fragile countries where they do not already exist.

[30] Commitments made in the earlier years, which were outstanding as of 2010.

Table A.4. Continued

Unlikely to be noticed:
• Double the share of Africa funding for regional programs to £1 billion over next four years.
• Provide extra support to help developing countries strengthen regulation of their own financial sectors.
• Provide funding to establish a network of African Centres of Excellence.
• Double support to the Africa Enterprise Challenge Fund.
• Provide advice on growth strategies for creating more jobs, on low carbon growth paths, and on the integration of climate concerns into future plans.
• Provide additional help to African regional organizations that offer technical support for credible elections.
• Build an international partnership to promote security and justice.
• Increase funding to the UN Peacebuilding Fund, contingent on its performance.
• Higher proportion of new resources to be spent multilaterally, in response to reforms.
• Push for EU aid budget resources to be reprioritized toward fragile countries in Asia and the Middle East.
• Make £50 million of this increased support available by April 2010.
• Offer new development innovation funding to support small-scale funding for UK individuals and communities active overseas.
• DFID has committed to double the support for agricultural research to £400 million (2008–2013).
• DFID has committed to support the 2009 G8 objective of reducing the global average cost of transferring remittances from 10 to 5 percent over the next 5 years.

Source: Birch 2010.

Table A.5. OECD/DAC coverage of aid to agriculture and food security related aid

1. List of sectors, subsectors, and groupings (agriculture sectors only)

CRS Code	Description	Clarifications / Additional notes on coverage
Agricultural policy (grouping 1)		
31110	Agricultural policy and administrative management	Agricultural sector policy, planning and programs; aid to agricultural ministries; institution capacity building and advice; unspecified agriculture.
31130	Agricultural land resources	Including soil degradation control; soil improvement; drainage of water-logged areas; soil desalination; agricultural land surveys; land reclamation; erosion control, desertification control.
31164	Agrarian reform	Including agricultural sector adjustment.
Agricultural production (grouping 2)		
31120	Agricultural development	Integrated projects; farm development.
31161	Foodcrop production	Including grains (wheat, rice, barley, maize, rye, oats, millet, sorghum); horticulture; vegetables; fruit and berries; other annual and perennial crops. [Use code 32161 for agroindustries.]
31162	Industrial crops/export crops	Including sugar; coffee, cocoa, tea; oil seeds, nuts, kernels; fiber crops; tobacco; rubber. [Use code 32161 for agroindustries.]
31163	Livestock	Animal husbandry; animal feed aid.
31165	Agricultural alternative	Projects to reduce illicit drug cultivation through other agricultural marketing and production opportunities (see code 43050 for nonagricultural alternative development).
Agricultural water resources (grouping 3)		
31140	Agricultural water resources	Irrigation, reservoirs, hydraulic structures, ground water exploitation for agricultural use.
Agricultural inputs (grouping 4)		
31150	Agricultural inputs	Supply of seeds, fertilizers, agricultural machinery/equipment.
Agricultural education/research/services (grouping 5)		
31166	Agricultural extension	Nonformal training in agriculture.
31181	Agricultural education/training	
31182	Agricultural research	Plant breeding, physiology, genetic resources, ecology, taxonomy, disease control, agricultural biotechnology; including livestock research (animal health, breeding and genetics, nutrition, physiology).
31191	Agricultural services	Marketing policies and organizations; storage and transportation, creation of strategic reserves.
31192	Plant and postharvest protection and pest control	Including integrated plant protection, biological plant protection activities, supply and management of agrochemicals, supply of pesticides, plant protection policy and legislation.
31193	Agricultural financial services	Financial intermediaries for the agricultural sector including credit schemes; crop insurance.
31194	Agricultural cooperatives	Including farmers' organizations.
31195	Livestock/veterinary services	Animal health and management, genetic resources, feed resources.

Table A.5. Continued

1. List of sectors, subsectors, and groupings (agriculture sectors only)

CRS Code	Description	Clarifications / Additional notes on coverage
Forestry (grouping 6)		
31210	Forestry policy and administrative management	Forestry sector policy, planning and programs; institution capacity building and advice; forestry surveys; unspecified forestry and agroforestry activities.
31220	Forestry development	Aforestation for industrial and rural consumption; exploitation and utilization; erosion control, desertification control; integrated forestry projects.
31261	Fuelwood/charcoal	Forestry development whose primary purpose is production of fuelwood and charcoal.
31281	Forestry education/training	
31282	Forestry research	Including artificial regeneration, genetic improvement, production methods, fertilizer, harvesting.
31291	Forestry services	
Fishing (grouping 7)		
31310	Fishing policy and administrative management	Fishing sector policy, planning and programs; institution capacity building and advice; ocean and coastal fishing; marine and freshwater fish surveys and prospecting; fishing boats/equipment; unspecified fishing activities
31320	Fishery development	Exploitation and utilization of fisheries; fish stock protection; aquaculture; integrated fishery projects.
31381	Fishery education/training	
31382	Fishery research	Pilot fish culture; marine/freshwater biological research.
31391	Fishery services	Fishing harbors; fish markets; fishery transport and cold storage.

2. Additional food security related subsectors

CRS Code	Description	Clarifications / Additional notes on coverage
43040	Rural development	Integrated rural development projects—regional development planning; promotion of decentralized and multisectoral competence for planning, coordination and management; implementation of regional development and measures (including natural reserve management); land management; land use planning; land settlement and resettlement activities [excluding resettlement of refugees and internally displaced persons (72010)]; functional integration of rural and urban areas; geographical information systems.
52010	Food aid/Food security	Supply of edible human food under national or international programs including transport costs; cash payments made for food supplies; project food aid and food aid for market sales when benefiting sector not specified; excluding emergency food aid.
72040	Emergency food aid	Food aid normally for general free distribution or special supplementary feeding programs; short-term relief to targeted population groups affected by emergency situations. Excludes nonemergency food security assistance programs/food aid (52010).

Source: OECD/DAC 2010.

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